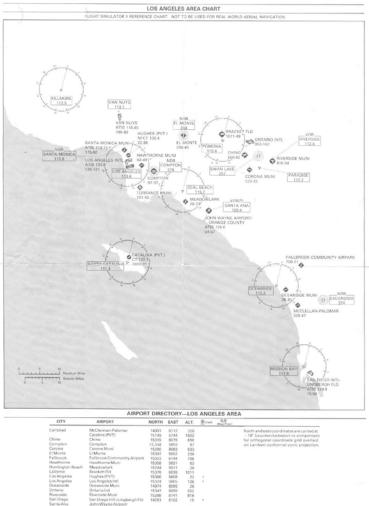
CITY
Junear         Aurora Maria         7752         1633         706           Decemington         Bloomington Normal         1560         1624         875         921         1503         1626         1624         875         921         1503         1626         875         84         231         1503         1626         784         84         231         92         231         1503         867         4         231         1503         867         614         84         87         84         86         76         86         76         86         76         86         76
Adolest
E 4 0 Civil-Public use airport
в Restricted Private-Norpublic use airport, having emergency use or landmark value
e Rotating light in operation, sunset to sunrise SANTA MONICA Arport Name ATIS 119.15 Advisory Fraquency (if available) 176-59 Elevation (feet) — Lergth (hundreds of feet)
NAME FREQUENCY = VOR
NAME FREQUENCY VORTAC (Distance Measuring Equipment Able)
NAME FREQUENCY 0 VORDME
NAME FREQUENCY D Non Directional Beacon
VOR DME If VOR falls directly on an airport, only the airport NAME symbol will be shown. The VOR facility type is shown at this top of the box.
AIRPORT NAME ABBREVIATIONS CO County
FLD Field INTL International



5961 54

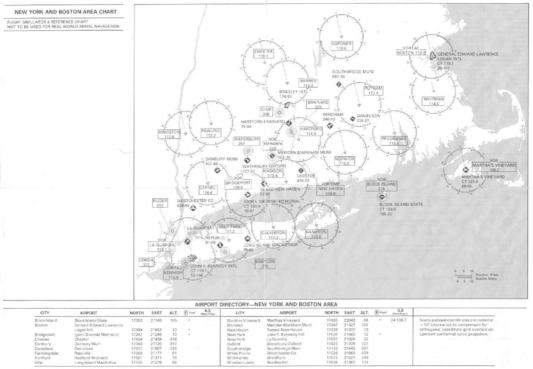
16R/111.3

15306 15498

5811 799

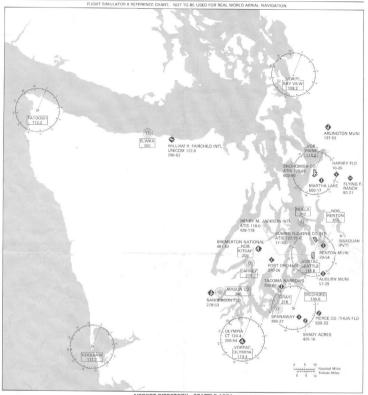
Santa Monica

Santa Monica Mun Torrance Muni



#### CM-FS2 FLIGHT REFERENCE CARD 3 - more AILERONS C - less / ) - full / C - cut ELEVATORS IGHT CONTROLS YOKE THROTTLE RUDDER space bar BBAKES CARBHEAT - ctrl IS is for ical topples carb heat on and off MAGNETOS-JOEM 1-W esess 2 right end M. Staff etriM, 4 beth ctriM, 5 start MIXTURE - ctrl M. : full lean (lean cutoff) ctrl M. - rich (proper flight mixture) PLIFE TANK SPEECT -- et el F. - (wit tank endf. > right tack COM RADIO - ctrl C, >>> Increase high-digits (<>< for decrease) static static continuous increase in a digital NAV RADIO -- cht N.1 select NAV 1 for frequency changes ctri N. 2 minct NAV 2 abitN\_>>> increase high digits on selected NAV radio (-->> for decrease) etri N. etri N. >>> increase low digits ADF - ctrl A >>> ctrl A 1.2, or 2 times to select digits 1.2, or 2 VORSIONS - enriv. 1 major VORIONS 1 strfV.2 select VOR OBS 2 ctrfV, >>> Incresse bearing (><< for decrease) TRANSPONDER -- press chilT one, two, those, or four times [rapidly] to select digits 1, 2, 3, or 4 chtT.>>> increase digit (---- for decrease) note: and X is treated as old T To Select View RADAR rear - 5.8 late - 5.5 3-0 reder zoom in - 4. xxx radar zeom out - 4. SELECTOR craft control keys after view ctrl L-lights E-go into edit mode ctrl B - altim adjust P-psuse (toggles between pause and run) ctrl D - heading indicator adjust + - read mode from library (reset simulator) ctrl Z - save mode library to disk S - save current flight parameters to mode library etrl X - read mode library from disk

#### SEATTLE AREA CHART



AIRPORT DIRECTORY—SEATTLE AREA									
CITY	AIRPORT	NORTH	EAST	ALT.	F (Faet)	ILS (Bary/Freq.)			
Alderwood Manor	Martha Lake	21502	6670	500			North and east coordinates are canted at		
Arlington	Arlington Muni	21616	6737	137			- 21° (counterclockwise) to compensate		
Auburn	Auburn Muni	21290	6586	57			for orthogonal coordinate grid overlaid		
Bremerton	Bremerton National	21407	6470	481			on Lambert conformal conic projection		
Everett	Snohomish Co	21525	6665	603		16/109.3	on camber comornar come projection		
Issaguah	Issaguah	21362	6668	500		10.100.0			
Monroe	Flying F. Ranch	21481	6738	50					
Olympia	Olympia	21218	6343	206	+				
Puyallup	Pierce CoThun Fld	21206	6534	530					
Port Angeles	William R. Fairchild Intl.	21740	6375	288					
Port Orchard	Port Orchard	21373	6483	370					
Renton	Renton Muni	21351	6612	29					
Seattle	Boeing Fld/King Co Intl	21376	6596	17	+				
Seattle	Henry M. Jackson Intl.	21343	6584	429					
	(Seattle-Tacoma Intl)								
Shelton	Sanderson Fld.	21353	6316	278					
Snohomish Co. (Pai	ne Field) see Everett								
Snohomish	Harvey Fld	21505	6711	16					
Spanaway	Shady Acres	21201	6501	425					
Spanaway	Spanaway	21215	6491	385					
Tacoma	Tacoma Narrows	21300	6480	292					
	1000110110110	21300	0400	202					

#### Abilene (VOR)

13431N 12205E freq. 113.7

#### Abilene

13384N 12269F alt. 1791

PWV 17-35 7199 X 147 RWY 17-35 7195 X 147 RWY 4-22 3683 X 98



#### Acton (VOR)

13330N 13014E freq. 110.6

#### Ada (NDB)

14331N 13461E freq. 302

### Ada

14318N 13445E alt. 1007

RWY 17-35 4998 X 98

RWY 12-30 3102 Y 49

#### Amarillo (VOR)

14729N 11708F freg. 117.2

Amarillo Int'l RWY 4-22 RWY 13-31

14687N 11686E 13500 X 298 5405 X 49

Ardmore, Downtown Ardmore

14055N 13260E alt. 843

> RWY 17-35 4998 X 72



Antlers (NDB)

14042N 13808F freq. 391

Ardmore

14115N 13303E alt. 761 RWY 8-26

RWY 12-30 RWY 4-22 7038 X 147 RWY 17-35 5878 X 147



Antlers

14033N 13790F alt. 574

RWY 17-35 3299 X 59



Big Spring (VOR) 13460N 11604E

freq. 114.3

Blue Ridge (VOR)

13659N 13521F freq. 114.9

Borger (VOR)

14943N freq. 108.6

Arbuckle (NDB) freq. Ardmore (VOR)

14089N 13260E

14054N 13271E

284

freq. 116.7 14876N 11824E alt. 3054

RWY 17-35

RWY 3-21

Rowle

13836N 13013F alt. 1102

RWY 17-35

Breckenridge (NDB)

13510N 12575E freq. 245

Breckenridge, Stephens Co.

13495N 12569E alt. 1282 RWY 17-35

RWY 4-22

Bridgeport (VOR)

RWY 13-31

13683N 13008F

freq. 116.5

2374 X 49

6297 X 98

3896 X 98

3617 X 59

4598 X 98 2374 X 49

13125N 12506F freq. 108.6

Brownwood (VOR)

Burns Flat (VOR) 14606N 12571E freq. 110

14918N 12178F

Canadian, Hemphill Co.

alt. 2385 RWY 4-22 RWY 0-18

Childress (VOR) 14271N 12142E

4099 X 72

2997 X 29

5999 X 147

5999 X 147

5999 X 147

4496 X 72

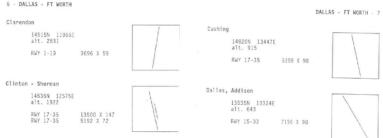
freq. 117.6 Childress

14289N 12145E alt. 1952

RWY 4-22 RWY 8-26 RWY 13-31 DWV 17-35

Clarendon (NDR)

14530N 11952E freq. 281





alt. 485 Corsicana (NDB) RWY 13-31 8795 X 147

13079N 13487F RWY 13-31 7750 X 147 freq. 396 RWY 0-18 6146 X 147

Cushing (NDB)

Dallas, Meacham 14809N 13462E freq. 242 13489N 13127F alt. 708

RWY 16-34

3998 X 72

RWY 16-34 7498 X 147 RWY 9-27 4050 X 98

# Dallas, Redbird

13414N 13302E alt. 659

RWY 13-31 5421 X 147 RWY 17-35 3798 X 147

421 X 147 798 X 147 Durant, Eaker

13945N 13516E alt. 699

RWY 17-35 RWY 12-30

4998 X 98 2997 X 72 1

Dallas-Ft.Worth (VOR)

13497N 13264E freq. 117

Dallas-Ft.Worth Reg.

RWY 0-18

RWY 0-18

RWY 13-31

13510N 13248E alt. 604 RWY 17-35 11384 X 147 RWY 17-35 11384 X 196

11384 X 147 11384 X 196 11384 X 196 11384 X 147 8997 X 196



Eastland

13363N 12588E alt. 1469 RWY 17-35

4054 X 59



El Reno (NDB) 14671N 13009E freq. 335

El Reno, Mustang 14649N 12998E

alt. 1414 RWY 17-35

4198 X 59

Duncan (VOR)

14189N 12997E freq. 111

Durant (NDB)

13953N 13531E freq. 359 Farley (NDB)

rey (NDB)

13333N 11268E freq. 326 freq. 330

13840N 13220E

## alt. 833 RWY 4-22 RWY 12-30

Gainesville

4749 X 147 4654 X 147 RWY 8-26 4598 X 147 RWY 17-35 4496 X 98

Graham (NDB)

13664N 12717E freq. 335 Graham

13649N 12709E alt. 1122

RWY 3-21 4198 X 72 RWY 17-35 3325 X 49

Grindstone Mountain (NDB)

13843N 13022E 356 freq.

Guthrie (VOR) 14014N 12097E

freq. 112.4

Guthrie

Haskell (NDB)

Haskell

freq. 400 Henryetta (NDB)

14790N 13219E

13737N 12297E

13731N 12296E

alt. 1624

RWY 0-18

freq. 407

alt. 1073

RWY 16-34

14577N 13714E freq. 257

14938N 12177E

Hemphill CO. (NDB)

3197 X 49

# Henryetta

14562N 13696E alt. 850

RWY 17-35 3499 X 49

# Hobart (VOR)

14439N 12605E freq. 111.8

Hobart

# 14479N 12610E

alt. 1565 RWY 3-21 5297 X 147 5297 X 147 RWY 12-30

RWY 17-35 Holdenville (NDB)

14450N 13557E freq. 411

Holdenville 14437N 13542E

alt. 863 RWY 17-35 3250 X 98 RWY 13-31

3197 X 98

5277 X 147



# Hudson Muni.

13432N 13426E alt. 446 RWY 17-35

13435N 13440E

freq. 248

Hudson (NDB)

Hyman (VOR)

13337N 11725E freq. 110.4 Kingfisher (VOR)

> 14810N 13023E freq.

Lamesa (NDB)

13642N 11468E freq. 338

Lamesa

13539N 11476E

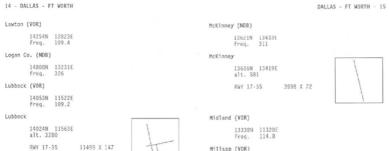
alt. 2998 RWY 7-25

RWY 16-34

114.7

4198 X 72

3998 X 49



RWY 17-35 11499 X 147 RWY 8-26 7999 X 147 RWY 17-35 2866 X 72 McAlester (VOR)

13468N 12902E freq. 117.7 Mineral Wells (NDB)

13497N 12883E freq. 255

Mineral Wells

14332N 13762E alt. 771 RWY 1-19

14329N 13781E

freq. 112

McAlester

5598 X 98

13495N 12875E alt. 964 RWY 13-31 RWY 17-35

4323 X 98 4198 X 98

#### 14550N 13187E freq. 260

Norman (NDB)

Norman, Max Westheimer

RWY 17-35

14535N 13175E alt. 1181 RWY 13-31 2997 X 59

1797 X 78

Oklahoma City (VOR) 14645N 13090E

freq. 115

Oklahoma City, Will Rogers World

14500N 13139E alt. 1296 RWY 17-35

9800 X 147 RWY 17-35 9797 X 147 RWY 12-30 6527 X 147

RWY 17-35 2974 X 72

Okmulgee (VOR)

Old Rip (NDB)

14699N

freq.

13355N freq.

Pampa (NDB)

14836N 11955E freq. 368

Pampa, Perry Lefors

14818N 11959E alt. 3244

RWY 17-35 RWY 5-23

Paris (VOR) 13748N 13854E freq. 113.6

Paris, Cox

13787N 13850E

alt. 548

RWY 17-35 RWY 3-21

Plainview (VOR)

14216N 11587E

freq. 112.9

RWY 13-31

5999 X 147 4624 X 147 4621 X 147

5497 X 98



freq. 296 Shawnee (NDB) 14580N 13382E freq. 227 Shawnee

13999N 12784E

14564N 13368E alt. 1079

RWY 17-35

Shawn (NDB)

Stephenville (NDB)

4198 X 147

13254N 12819E

freq. 223

Sulphur Springs (VOR)

13600N 13820E freq. 109

Sweetwater (NDB)

13451N 11984E

freq. 275

Tahlequah (NDB)

14781N 14089E freq. 215

freq. Scurry (VOR) 13302N

freq.

112.9

13504E

13458N 13876E

13415N 13314E

14669N 12424E freq. 115.2

13951N 12769E 344

freq.

Sayre (VOR)

Scotland (NDB)

287

freq. Redbird (NDB)

# 20 - DALLAS - FT WORTH

### Tahlequah

14763N 14067E alt. 872



5497 X 147

## Tulsa (VOR) 14917N 13821E

freq. 114.4

Tulsa Int'l

RWY 17-35

14913N 13778E alt. 676 RWY 17-35 9997 X 196 RWY 8-25 7694 X 147



# Tuscola (VOR)

13322N 12211E freq.



13448N 11987F alt. 2385

RWY 16-34 5648 X 147 RWY 3-21



### Witchita Falls (VOR)

14039N 12735E 112.7 freq.

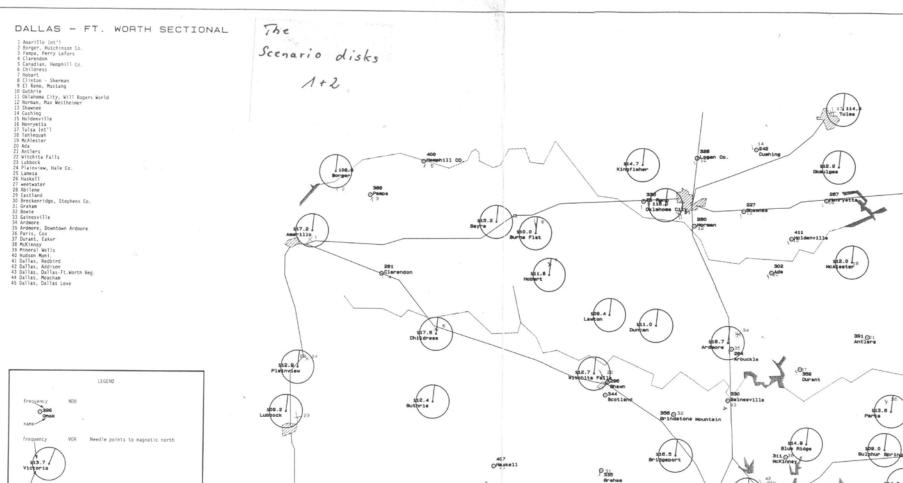
### Witchita Falls

14024N 12764E

RWY 15-33 13097 X 298 RWY 15-33 8796 X 147 RWY 17-35 6999 X 147







Millesp

©223 Stephenville 12.9

OPowell 396 Corsicans

OBreckenridge

0110 01d Rip OTehlequeh

338 6 25 Lane

Big Spring

110.4

## Acton (VOR)

13330N 13014E freq. 110.5

#### Alexandria (VOR)

12581N 14901E freq. 115.1

# Alexandria, Esler Reg.

12524N 14989E alt. 112

RWY 8-25 5995 X 147 RWY 14-32

5598 X 147



# Andrau (NDB)

12042N 13563E freq. 269

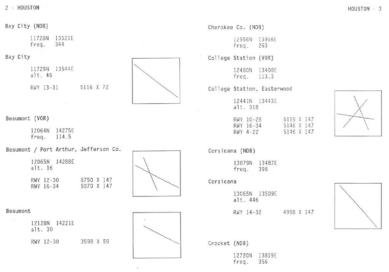
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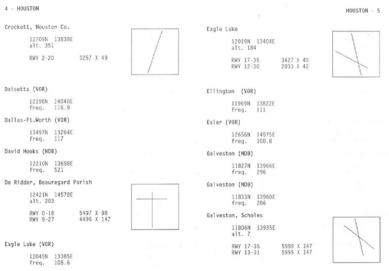
12202N 15323F freq. 116.5

# Baton Rouge, Ryan

12216N 15381E alt. 72

RWY 4-22 6897 X 147 RWY 13-31





Goodhue (NDB) Houston, Hobby 12130N 14212E 11969N 13799E freq. 368 alt. 45 7599 X 147 Hobby (VOR) RWY 4-22 7599 X 147 RWY 13-31 5999 X 147 11993N 13781F RWY 17-35 freq. 117.6 RWY 13-31 5149 X 98 Hodge (NDB) Houston, Hooks Mem. 13003N 14854E 12176N 13717F alt. 151



9400 X 147

6035 X 98

1981 X 72

4749 X 49

2997 X 49

6 - HOUSTON

RWY 8-26

RWY 14-32

RWY 13-31

alt. 79

RWY 16-34

RWY 11-29

12037N 13686E

Houston, Andrau



RWY 17-35 RWY 17-35 Hudson (NDB)



5999 X 98

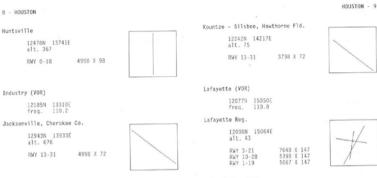
3998 X 39

HOUSTON - 7

13435N 13440E freq. 248 Humble (VOR)

> 308 freq.

12128N freq. 116.6 Huntsville (NDB) 12485N 13721E







freq. 344 Lake Charles

Jasper Co. - Bell Fld. 12473N 14324E

alt. 223 RWY 17-35

4149 X 68

12116N 14625E freq. 113.4

RWY 15-33

PWY 5-23

12112N 14594E alt. 16

HOUSTON - 11

### 12084N 13637E freq. 249 Lee Co. (NDB)

12301N 13166E freq. 385

Leona (VOR) 12664N 13597E freq. 110.8

Lufkin (VOR)

12626N 14066E freq. 112.1 Lufkin, Angelina Co.

freq. 414

RWY 15-33

12984N 14466E

PMY 7-25 Mansfield (NDB)

12649N 14075E alt. 289

4513 X 98

4398 X 98

12683N 15365E PWY 13-31 EWY 17-35

Mansfield, Desoto Parish

alt. 325

RWY 3-21

RWY 0-18

Nacogdoches (NDB)

Natchez (VOR)

12271N 14478E

12832N 14084E

freq. 391

Nacogdoches, East Texas Reg.

alt. 371

RWY 6-24

RWY 15-33

alt. 272

12795N 14105E

12696N 15354E freq. 110 Natchez-Adams Co., Hardy-Anders Fld

5067 X 147

4198 X 147

3598 X 72

5067 X 72

5497 7 147 4998 X 127





freq. 115.9

New Iberia, Acadiana











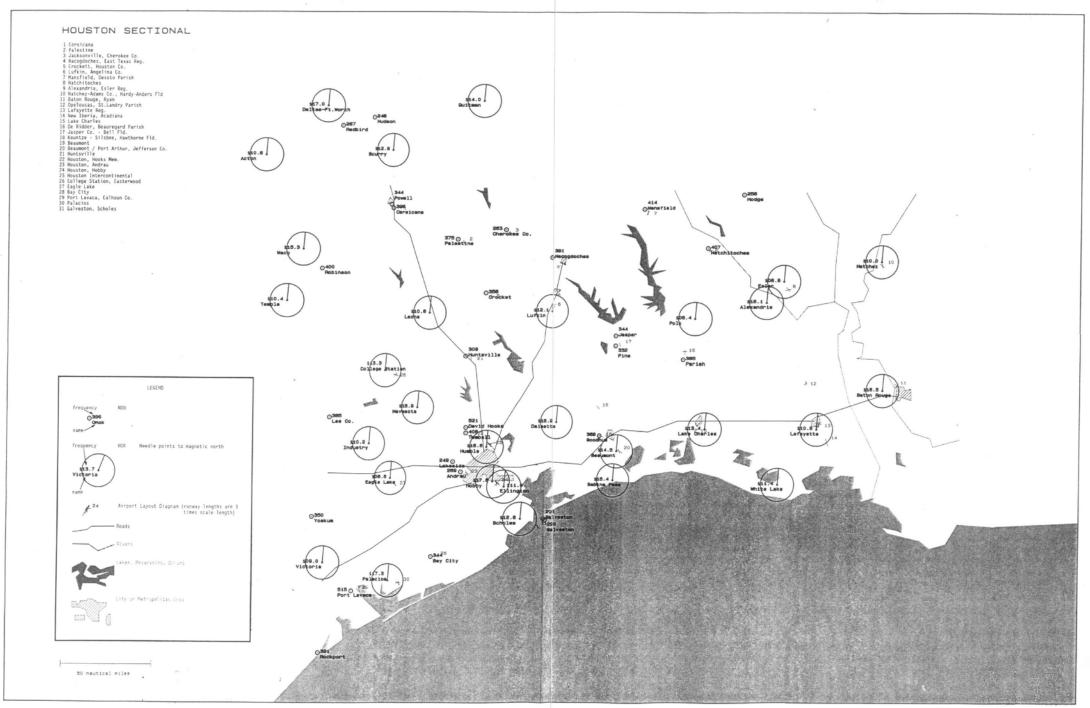


12392N 14567E freq. 385

Pine (NDB) 12470N 14307E freq. 332

HOUSTON - 15

12544N 14626E freq. 108.4	1)404N 13(44E freq. 391	
Port Lavaca (NDB)	Sabine Pass (VOR)	
11628N 13191E freq. 515	11954N 14250E freq. 115.4	
Port Lavaca, Calhoun Co.	Scholes (VOR)	
11631N 13217E alt. 33	11840N 13871E freq. 112.8	
RWY 14-32 3998 X 72	Scurry (VOR)	
	13302N 13504E freq. 112.9	
Powell (NDB)	Temple (VOR)	
13094N 13480E freq. 344	12763N 13043E freq. 110.4	
Quitman (VOR)	Tomball (NDB)	
13458N 13876E freq. 114	12189N 13696E freq. 408	16 - HOUSTON
Redbird (NDB)	Victoria (VOR)	White Lake (VOR)
13415N 13314E freq. 287	11746N 13091E freq. 109	11879N 14881E freq. 111.4
Robinson (NDB)	Nacc (VOR)	Yoakum (NDB)
12874N 13187E freq. 400	12955N 13122E freq. 115.3	11926N 13065E freq. 350



# Abilene (VOR) 13431N 12205E

freq. 113.7

# Acton (VOR)

13330N 13014E freq. 110.6

# Alice (VOR)

11287N 12652E freq. 114.5

#### Austin (VOR)

12375N 12896E freq. 114.6

# Austin, Mueller

12376N 12909E

alt. 633

RWY 13-31 7268 X 147 RWY 17-35 PMV 13-31

Big Lake, Reagan Co.

12937N 11554E alt. 2703 4027 X 49

RWY 16-3-

5005 X 147







# Coleman

13111N 12349E alt. 1696

13121N 12337E

freq. 385

RWY 15-33

3798 X 72



Brownwood (VOR)

13125N 12506E

freq. 108.6

# Brownwood

13069N 12508E alt. 1387

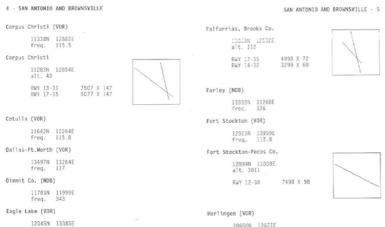
RWY 17-35 5595 X 147 RWY 12-30

4598 X 98

# College Station (VOR)

12460N 13400E freq. 113.3

Conor (NDB) 11313N 12827E freq. 382



freq. 108.8

freq. 108.6

# 6 - SAN ANTONIO AND BROWNSVILLE Harlingen, Rio Grande Valley Int'l

10625N 12732E alt. 36 RWY 17-35 8298 X 147

RWY 17-35 5949 X 147 RWY 8-26 5743 X 147 RWY 13-31 5254 X 147

Honda (NDB)

12039N 12294E freq. 329 Hondo

12037N 12303E

alt. 928 RWY 8-26 6097 X 147

RWY 13-31 6097 X 147 RWY 17-35 6097 X 147 RWY 4-22 5497 X 147 RWY 17-35 4696 X 147

Hyman (VOR)

13337N 11721E freq.

Industry (VOR) 12185N 13310E freq.

110.2

Lampasas 12741N 12752E alt. 1214 RWY 16-34

Junction (VOR)

Lampasas (VOR)

12503N 12117E

12782N 12774E

freq. 112.5

freq.

Laredo (VOR)

11234N 12100E freq. 117.4 Laredo Int'l

11263N 12098E

alt. 508 RWY 17-35 RWY 17-35

RWY 14-32 RWY 9-27

Laughlin (VOR) 12113N 11688E

114.4 freq.

3808 X 59

5923 X 147

5431 X 147

SAN ANTONIO AND BROWNSVILLE - 7

8199 X 147 7809 X 147



Mineral Wells (NDB)

Mitchell (NDB)

Llano (VOR) 12641N 12513E frec. 108.2

McAllen (VOR) 10617N 12497E freq. 109.8

McAllen, Miller Int'l 10621N 12503E alt. 108

RWY 13-31 7107 X 147 RWY 0-18 2984 X 59

McGregor 12871N 13097E

alt. 590 RWY 17-35 5497 X 147

RWY 4-22

13338N 11320F freq.

Midland (VOR)

8 - SAN ANTONIO AND BROWNSVILLE

3778 X 55

Monahans, Hurd Mem.

13180N 11054F alt. 2614 RWY 12-30 RWY 1-19

freq. 114

freq. 212

New Braunfels (NDB)

13497N 12883E

10449N 12824F

freq. 375

freq. 266

























SAN ANTONIO AND BROWNSVILLE - 9

5369 X 147

5349 X 147

5359 X 98

10 - SAN ANTONIO AND BROWNSVILLE

12137N 12746E

13355N 12592E

11654N 13341E

11628N 13191E

12065N 12638E

12943N 11536F

13415N 13314E

freq. 515

freq. 112.3

freq. 341

freq. 287

freq. 117.3 Port Lavaca (NDB)

freq. 410

alt. 545

RWY 17-35

RWY 4-22

RWY 13-31

Old Rip (NDB)

Palacios (VOR)

Randolf (VOR)

Reagan (NDB)

Redbird (NDB)

# Robinson (NDB)

Rockport (NDB)

12874N 13187F freq. 400

freq. 391

11402N 13046E

12372N 11903F

freq. 111.2

12970N 11923E

freq. 115.1

12958N 11926E

alt. 1916

RWY 0-18

RWY 3-21

RWY 9-27

alt. 26

RWY 14-32

RWY 8-26

RWY 17-35

Rocksprings (VOR)

San Angelo (VOR)

San Angelo, Mathis

11404N 13044F

Rockport, Arkansas Co.

4496 X 147

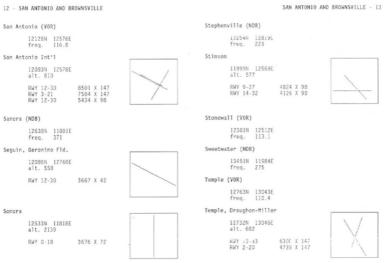
6917 X 147

5936 X 147

4398 X 72

5598 X 147 4496 X 147

SAN ANTONIO AND BROWNSVILLE - 11



# 111.4

Tuscola (VOR) 13322N 12211E

14 - SAN ANTONIO AND BROWNSVILLE

freq. 111.5 Uvalde (NDB)

11982N 12073E freq. 281

Uvalde, Garner

12000N 12084F alt. 941

RWY 15-33

Victoria (VOR)

Waco (VOR)

11746N 13091E freq. 109

12955N 13122E 115.3 freq.

5247 X 98



Yoakum Muni. 11930N 13064E

alt. 367 RWY 13-31

3447 X 59

6596 X 147

5897 X 147

5497 X 147



SAN ANTONIO AND BROWNSVILLE - 15











# RWY 5-23 Yoakum (NDB)

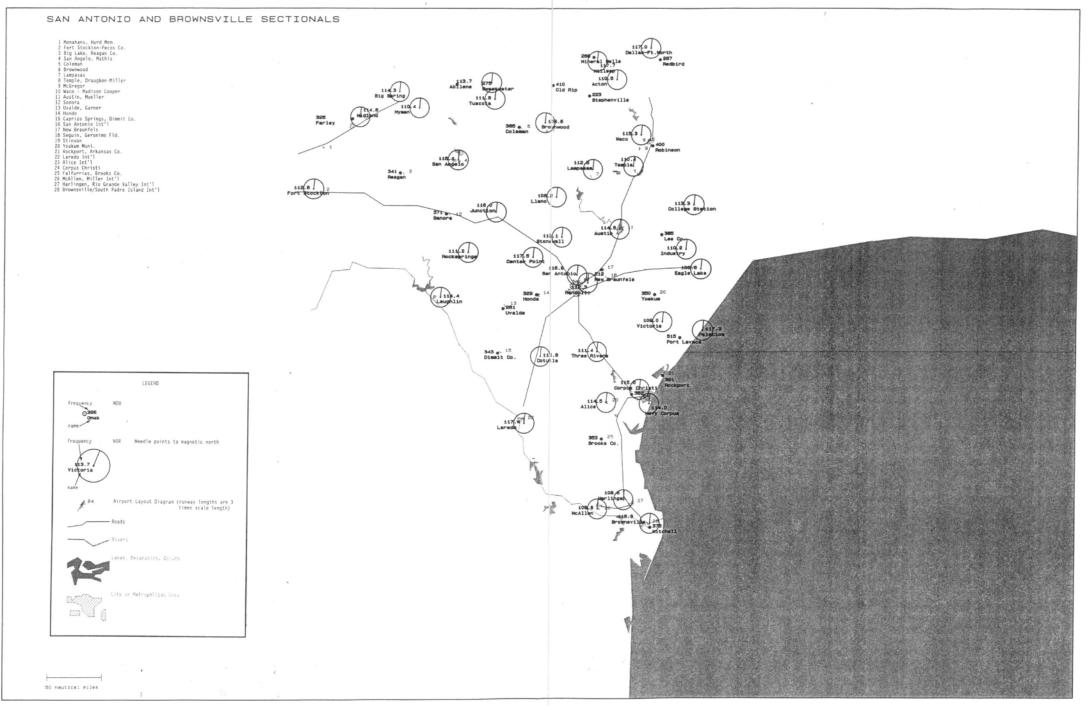
# RWY 1-19 RWY 14-32 11926N

freq. 350

Waco - Madison Cooper

alt. 515

12922N 13134E



# ALBUQUERQUE AND EL PASO - 1

# Alamagordo - White Sands

13805N 10022E alt. 4198

RWY 3-21 7002 X 147

### Albuquerque (VOR) 14796N 9905E

freq. 113.2 Albuquerque Int'l

14782N 9979E

RWY 8-26

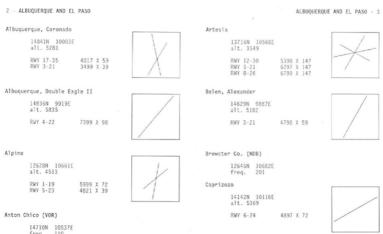
RWY 17-35 RWY 3-21 RWY 12-30

7747 X 147 5392 X 147

# Albuquerque, Alameda

14847N 9971E alt. 5097 RWY 10-28

6077 X 78 RWY 17-35



Carlsbad (VOR)

13429N 10622E

freq. 116.3

freq. 110

Artesia (NDB)

13703N 10575E

freq. 414

7852 X 147 5828 X 147

4705 X 147

3309 X 49

6199 X 147

5697 X 147

4683 X 59

5505 X 72

5598 X 59

11010 X 147

9005 X 147

5490 X 72



freg.

Carlsbad, Cavern City

13484N 10608F

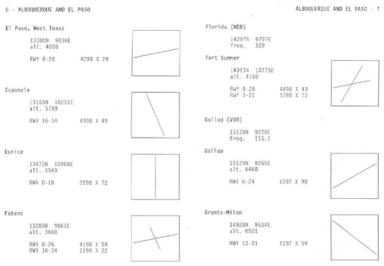
alt. 3293

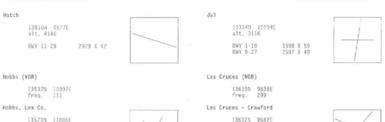
RWY 3-21

RWY 14-32 RWY 8-26













alt. 4454 RWY 4-22 RWY 12-30 RWY 8-25

7501 X 98 7491 X 147 6071 X 98



ALBUQUERQUE AND EL PASO - 9

Holloman (VOR)

Las Vegas (NM) (VOR) 14952N 10547E

13859N 9982E 108.2 freq.

8 - ALBUQUERQUE AND EL PASO

freq. 117.3

Hudspeth (VOR) 13248N 10133E

Las Vegas, NM

14949N 10536E alt. 6865

freq. 115 Isleta (NDB)

14758N 9967E freq. 230

RWY 2 20 4996 X 72 RWY 14-32



alt. 4831 RWY 17-35

Lovington (NDB)

Marathon (NDB)

12531N 10816E

freg.

















Otto (VOR)

Pecos (VOR)

Marfa

Marfa (VOR)

Newman (VOR)

12597N 10552E

freq. 115.9

12639N 10537E alt. 4848

RWY 3-21

RWY 12-30

13482N 9838E freq. 112.4

14750N 10217E

114

13075N 10789E freq. 111.8

5297 X 147

5297 X 72

Pecos City

freq.

13040N 10809E alt. 2617

RWY 9-27

7199 X 147 RWY 13-31 6254 X 98 RWY 0-18 3749 X 147



ALBUQUERQUE AND EL PASO - 13



13303N 10255E freq.

> freq. 110.6

Roswell (VOR) Santa Fe (VOR)

freq. 116.1

13919N 10556E 14950N alt. 6344

Santa Fe Co.



4398 X 49





14369N 9791E

14608N 8939F

freq. 274

St. Johns (VOR) 14704N 9018E

alt. 4851

Socorro







RWY 12-30





Silver City (VOR)

RWY 8-26

6799 X 98

Textico (VOR)

# RWY 8-26

freq. 116.8

14493N 9845E

Socorro (VOR)

Topan (NDB)

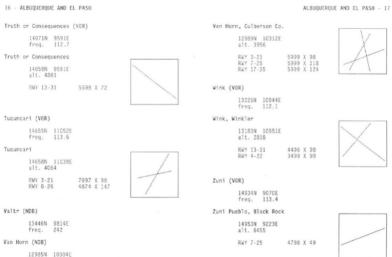
14317N 11276F

freq. 112.2

13921N 10621E

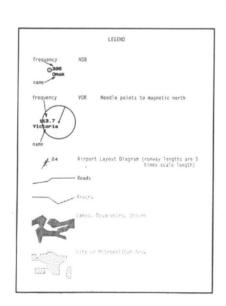
freq. 305

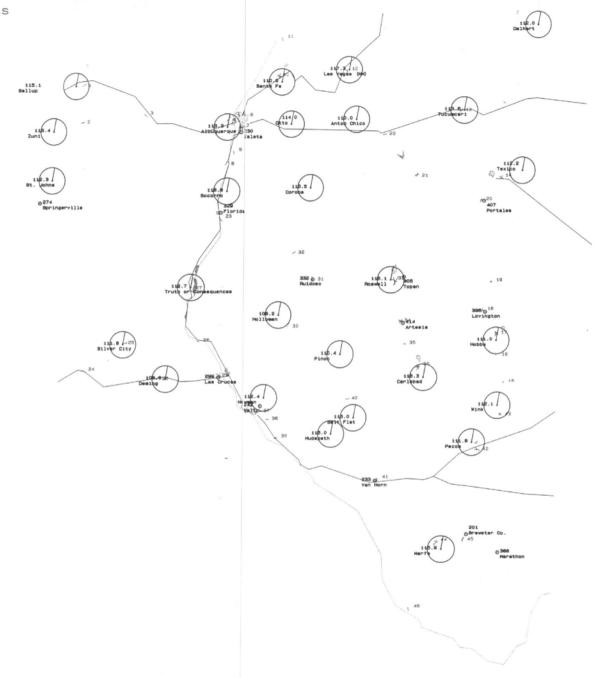
2387 X 49



freq. 233







14896N 5994E alt. 397

RWY 17-35



5818 X 147





PHOENIX - 1

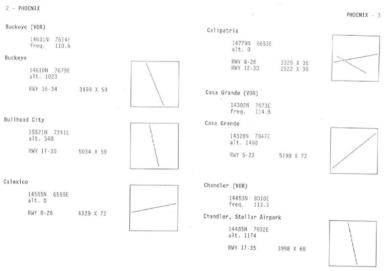
# Brawley

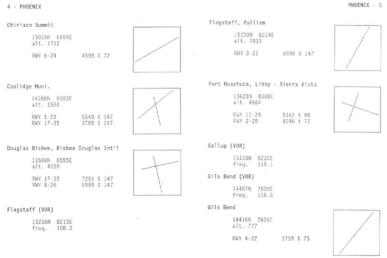
14720N 6639E alt. 0

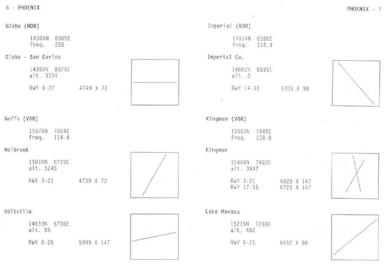


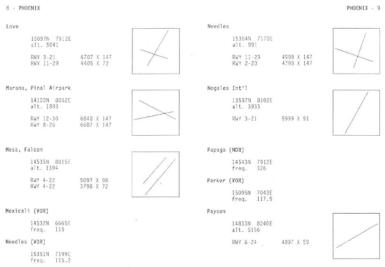
RWY 8-26 4444 X 59

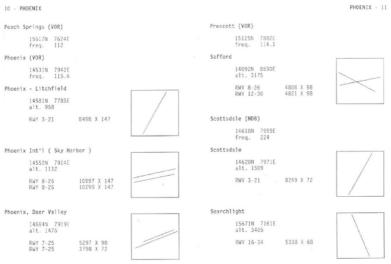


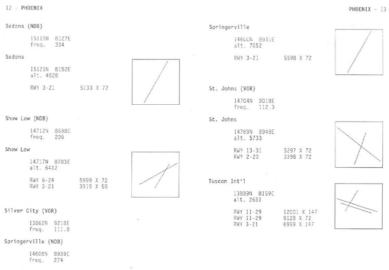


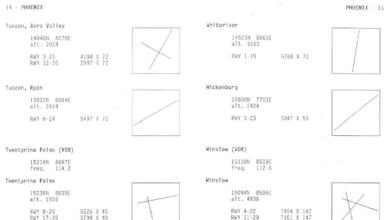












6248 X 147

RWY 17-35

### 16 - PHOENIX

## Yuma Int'l

14471N 6916E

BWY 3-21

RWY 8-26 RWY 17-35

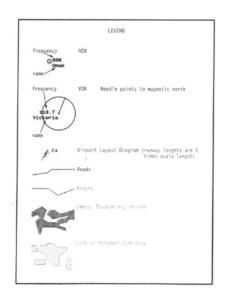
Zuni (VOR) 14934N 9070E

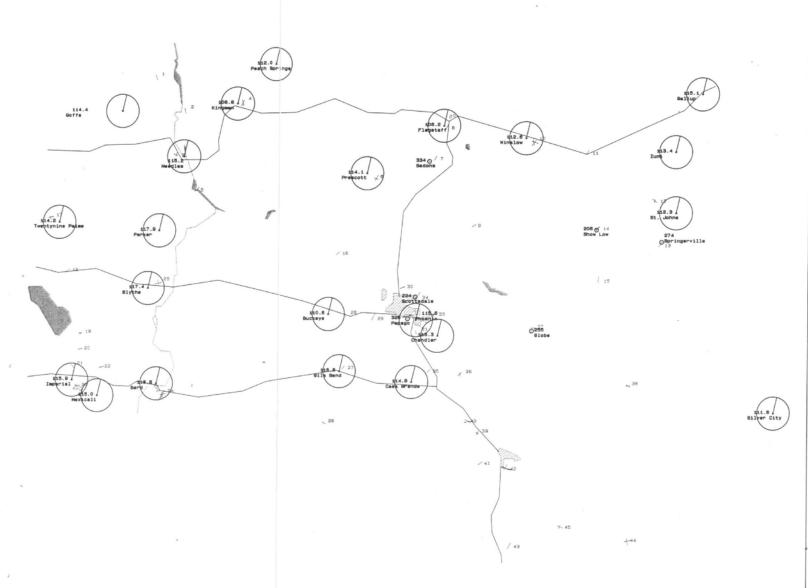
5707 X 147



freq. 113.4



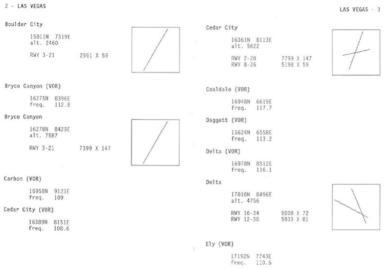


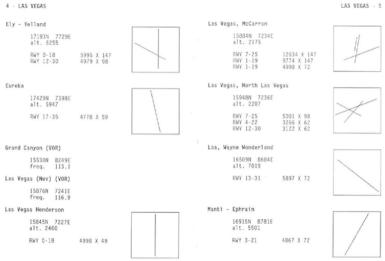


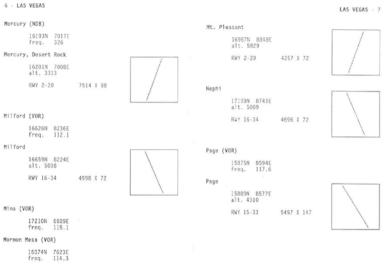
15548N 8314E alt. 5852 RWY 13-31 4496 X 72

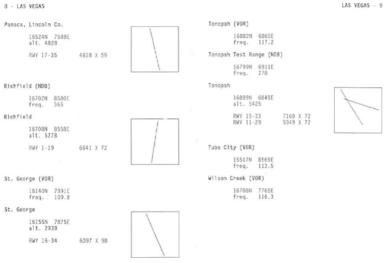
Boulder City (VOR) 15808N 7328E freq. 116.7

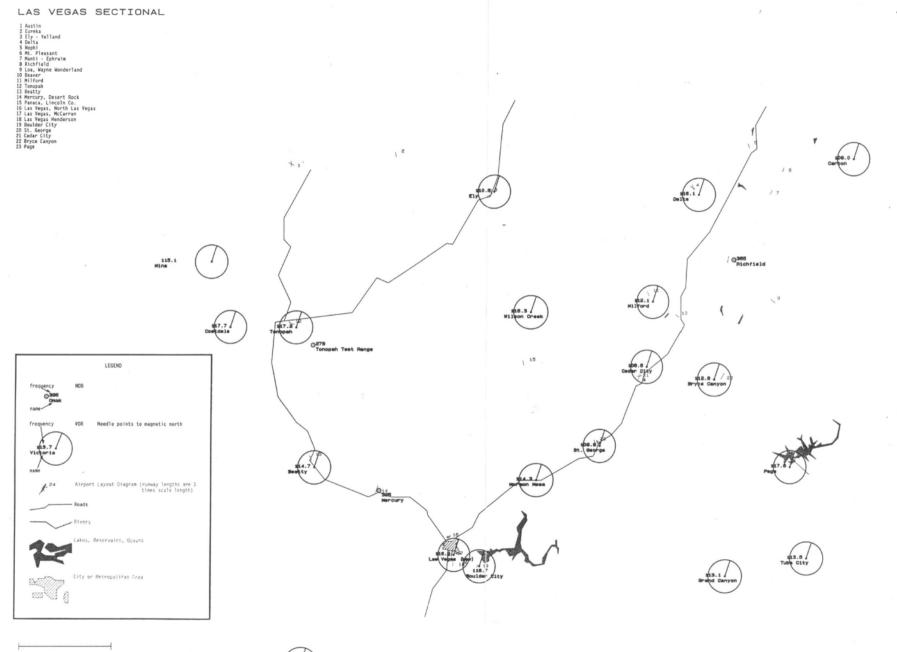
LAS VEGAS - 1











### Apple Valley 15522N 6307E alt. 3060

Avenal (VOR)

RWY 0-18 5497 X 147

16234N 5480E freq. 117.1

Bakersfield (VOR)

16079N 5758E freq. 115.4

Bakersfield, Meadows

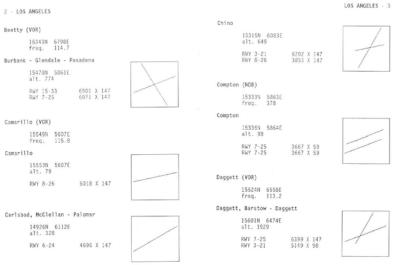
16053N 5767E alt. 489

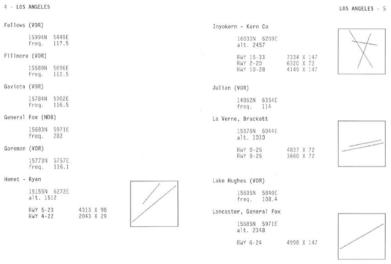
RWY 12-30 6707 X 147 RWY 12-30

Banning

15214N 6349F alt. 2221

RWY 8-26 5198 X 147





Long Beach alt. 56

15296N 5885E

RMY 12-30

RWY 7-25

RWY 7-25

RWY 16-34

RWY 16-34

15379N 5811E

alt. 125 RWY 7-25

RWY 7-25

RWY 6-24

RWY 6-24

15184N 6215E freq. 113.4

14774N 5089E freq. 117.8

Los Angeles Int'l

March (VOR)

Mission Bay (VOR)

6 - LOS ANGELES



12090 X 147

11998 X 196

10282 X 147

8924 X 147



Mojave

9597 X 196

5198 X 49





0xnard

Ontario Int'l

5949 X 98

10197 X 147 10000 X 147 4749 X 147

LOS ANGELES - 7

15810N 6033E

14983N 6074E

15343N 6106E

15563N 5567E

alt. 951

RWY 8-25

RWY 8-25

RWY 3-21

alt. 43 RWY 7-25

freq.

alt. 2788

RWY 12-30

RWY 7-25

Pettis (NDB) Palm Springs (VOR) 15318N 6187E 15153N 6489E freq. 397 freq. 115.5 Poggi (VOR) Palm Springs 14679N 6157E 15143N 6459E

alt. 449 Pomona (VOR) 7012 X 147 RWY 12-30

Palmdale (VOR) 15624N 6010E

freq. 114.5 Palmdale AF

15528N 6003E alt. 2542 RWY 7-25 12001 X 195 11998 X 147 RWY 4-22

8 - LOS ANGELES

Paradise (VOR) 15276N 6112E

freq. 112.2

16308N 5266E

freq. 114.3

Paso Robles (VOR)

Priest (VOR) 16520N 5389E Rialto

freq. 110 15352N 6185E alt. 1437

RWY 6-24

RWY 17-35

15280N 6141E

freq. 112.4

Riverside (VOR)

freq. 109.8

15367N 5041F freq. 110.4 Porterville (VOR)

16249N 5836E

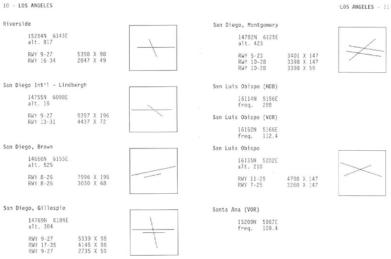
freq. 109.2

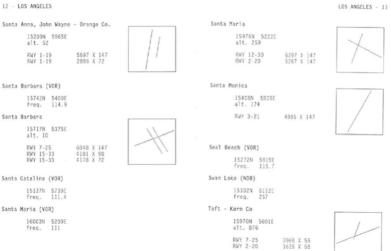
3598 X 72

LOS ANGELES - 9









alt. 0 RWY 12-30

RWY 17-35

Thermal

Tijuana (VOR)

14 - LOS ANGELES

15030N 6561E 4998 X 147 4998 X 147

14646N 6158E freq. 116.5

Torrance 15311N 5820E alt. 102

RWY 11-29

RWY 11-29

Twentynine Palms (VOR) 15194N 6745E freq. 114.2

4998 X 147 2997 X 72

Ventura (VOR) 15507N freq.

Twentynine Palms

Van Nuys

15220N 6691E

15488N 5816E alt. 800

RWY 15-34

RWY 15-34

alt. 1906

RWY 8-26

RWY 17-35

Visalia (VOR) 16468N

freq. 109.4

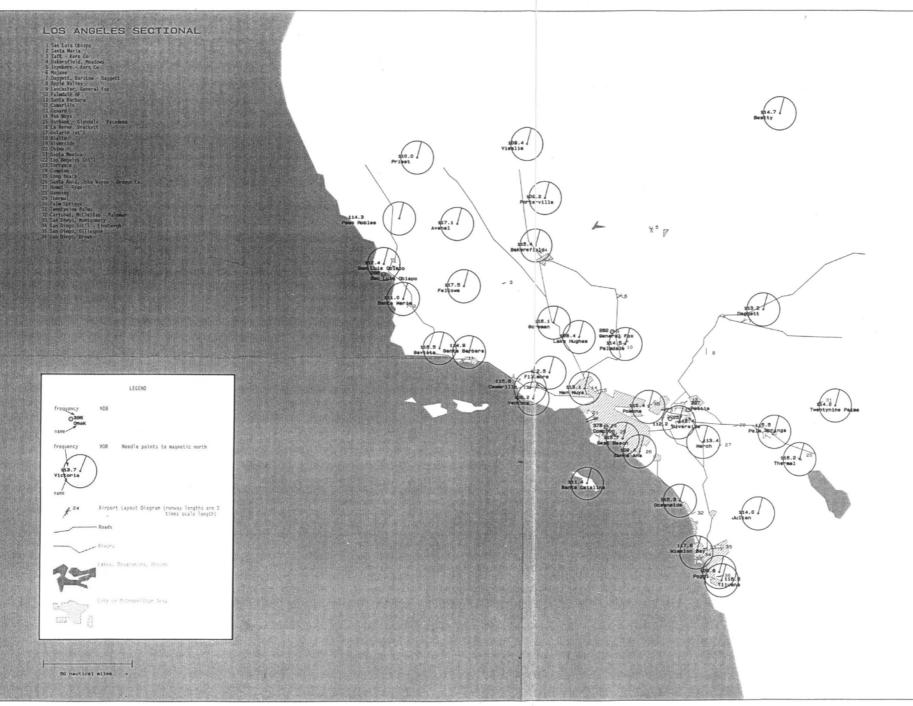
108.2 5815E

5609E

7999 X 147 3998 X 147

LOS ANGELES - 15

5526 X 45



### Big Sur (VOR)

16658N 5071E freq. 114

#### Bishop (VOR)

freq. 109.6

#### Casa Diablo (NDB)

16854N 6298E freq. 260

### Chandler (NDB)

16661N 5751E freq. 344

#### Chico (VOR)

18158N 5573E freq. 109.8 18158N 5567E

#### Chico

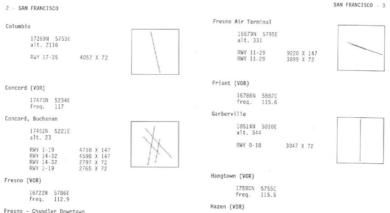
alt. 239 RWY 13-31 RWY 13-31

6723 X 147 3004 X 59



### Columbia (NDB)

17267N 5759F freq. 404



16671N 5752E

3473 X 72

3440 X 72

alt. 279

RWY 12-30

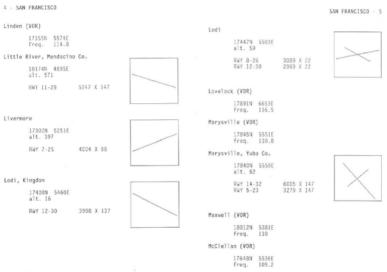
RWY 12-30

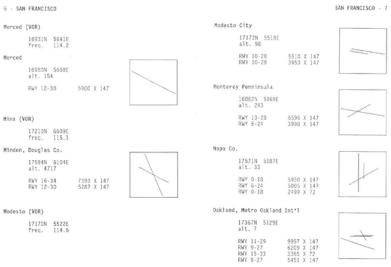
17712N 6434E

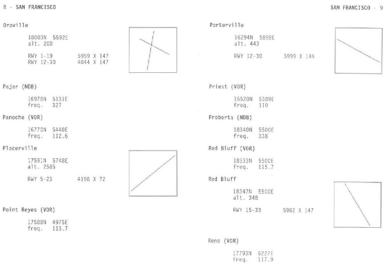
freq. 114.1

17720N 5979E freq. 113.2

Lake Tahoe (VOR)







## Reno Cannon 17788N 6176E

8997 X 147

5100 X 147

5589 X 72

8078 X 147

7599 X 147

8596 X 147





Sacremento Exec.

RWY 2-20 5500 X 147 RWY 15-34 3483 X 147 RWY 12-30 3834 X 98 Salinas (VOR)

> 16852N 5163E freq. 117.3



alt. 5045 RWY 14-32 RWY 8-25

17875N 6169E

17572N 5455E

RWY 16-34

alt. 4412

RWY 16-34

RWY 7-25

RWY 16-34

Reno/Stead

10 - SAN FRANCISCO

Salinas 16856N 5161E alt. 85 RWY 8-25 RWY 13-31 RWY 3-21

alt. 10

RWY 9-27

RWY 9-27

RWY 17-35

5339 X 98

2735 X 59

4145 X 98

SAN FRANCISCO - 11

freq. 115.2 Sacramento Metro 17681N 5477E alt. 23

Sacramento (VOR)

San Francisco Int'l

RWY 14-32 . 17340N 5061E

### San Jose, Reid - Hillview 17158N 5194E

alt. 134 RWY 13-31 RWY 13-31

RWY 12-30

RWY 12-30

3096 X 72

17184N 5165E alt. 56

8898 X 147

4418 X 147

RWY 11-29 2997 X 39

Santa Rosa (VOR) 17758N 5064E

San Jose

freq. 113 Santa Rosa, Sonoma Co.

17756N 5066E

alt. 125

RWY 14-32 RWY 1-19

5113 X 147 5001 X 147

alt. 98 RWY 16-34

Santa Rosa

Sausalito (VOR)

17711N 5066F

6887 X 196

8541 X 147

17452N 5050E free. 116.2 Scaggs Island (VOR)

17567N 5149E freq. 112.1

South Lake Tahoe, Lake Tahoe

17570N 6016F alt. 6265 RWY 0-18

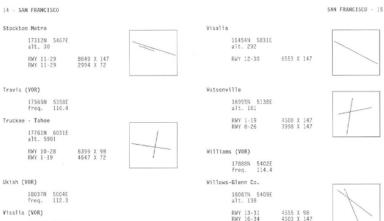
Sparks (NDB)

freq. Stockton (VOR)

frec. 116

17875N 6213E

17276N 5483E



Woodside (VOR)

17233N 5054E freq. 113.9

freq.

16468N 5815E 109.4

# The SAN FRANCISCO SECTIONAL SAN PRANCISC I carberylle 2 had Wiff 3 Dity 3 Dity 5 Dewille 6 Reng/Stad 7 Reng Cannon 8 Sinders, Dewlar Ca. 5 Sewille 6 Reng/Stad 7 Reng Cannon 8 Sinders, Dewlar Ca. 9 S Scenario disks 3-5 1 1 Next comes (maybe) 404 © 18 Columbia LEGEND VOR Needle points to magnetic north Airport Layout Diagram (runway lengths are 3 times scale length) 112.6 / Panoche takes, Reservoirs, Oceans Privat N. 50 pautical miles

19941N 9104E alt. 5032

Anaconda

Beaverhead (NDB)

19546N 9114E freq. 379

DUY 4-22 4495 X 59

19588N 9909E

4647 X 72

GREAT FALLS - 1

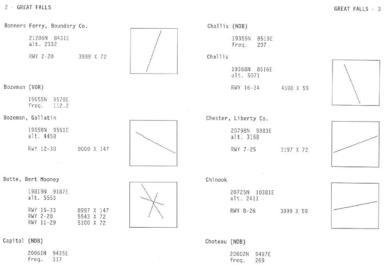
Billings (VOR)

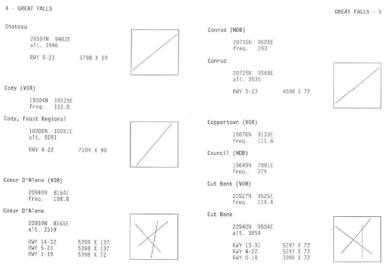
Blackfoot (NDB) 20925N 9521F freq. 250

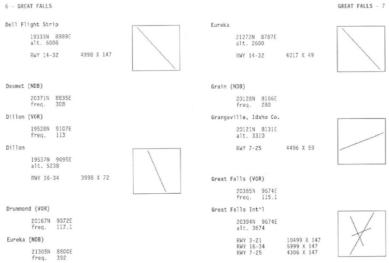
Big Timber

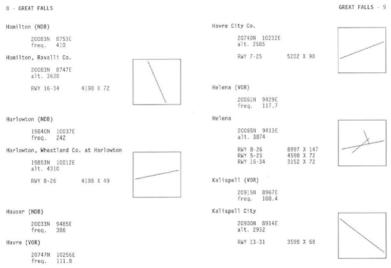
alt. 4480 RWY 6-24

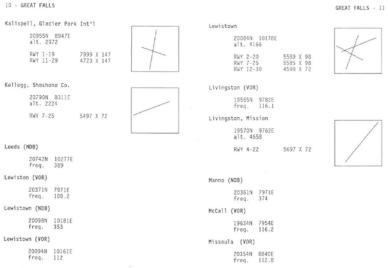
19492N 10339E freq. 114.5

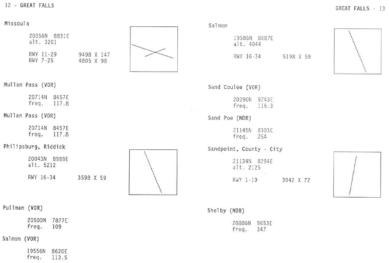


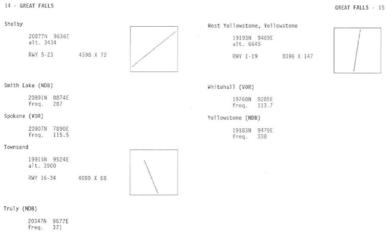


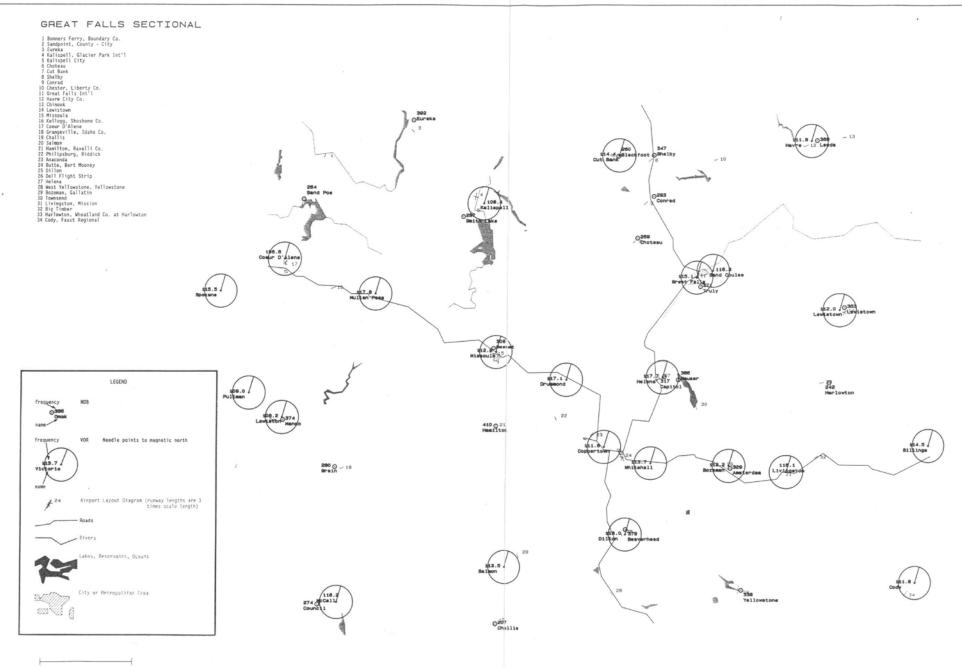












#### Abeta (NDB) 18912N 5055F freq. 233

Alkali Lake State 19309N 6624E alt. 4313

Alturas (NDB)

Alturas

Arcata (VOR)

RWY 17-35 6149 X 147

18716N 6231E

freq. 215

alt. 4376

RWY 13-31

18711N 6223E

18923N 5058E freq. 110.2

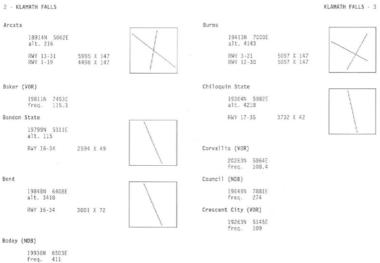
KLAMATH FALLS - 1

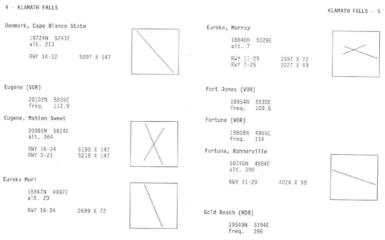


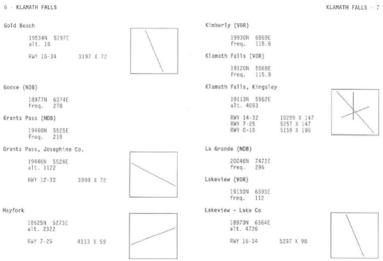


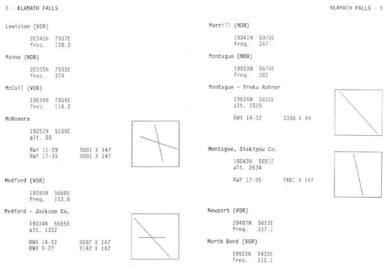
RWY 3-21

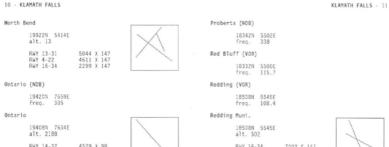
4296 X 49 3457 X 59













4998 X 59

3998 X 39

Pendleton (VOR)

Prineville

20275N 7250E

freq. 114.7

19896N 6527E alt. 3247 RWY 10-28

RWY 15-33

RWY 16-34 RWY 12-30

Redding Sky Ranch

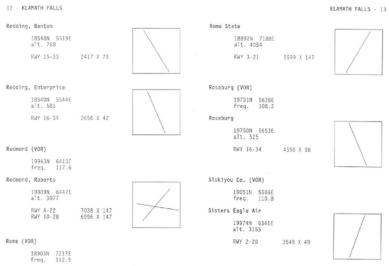
18514N 5511E

alt. 502

RWY 12-30

7002 X 147 5061 X 147

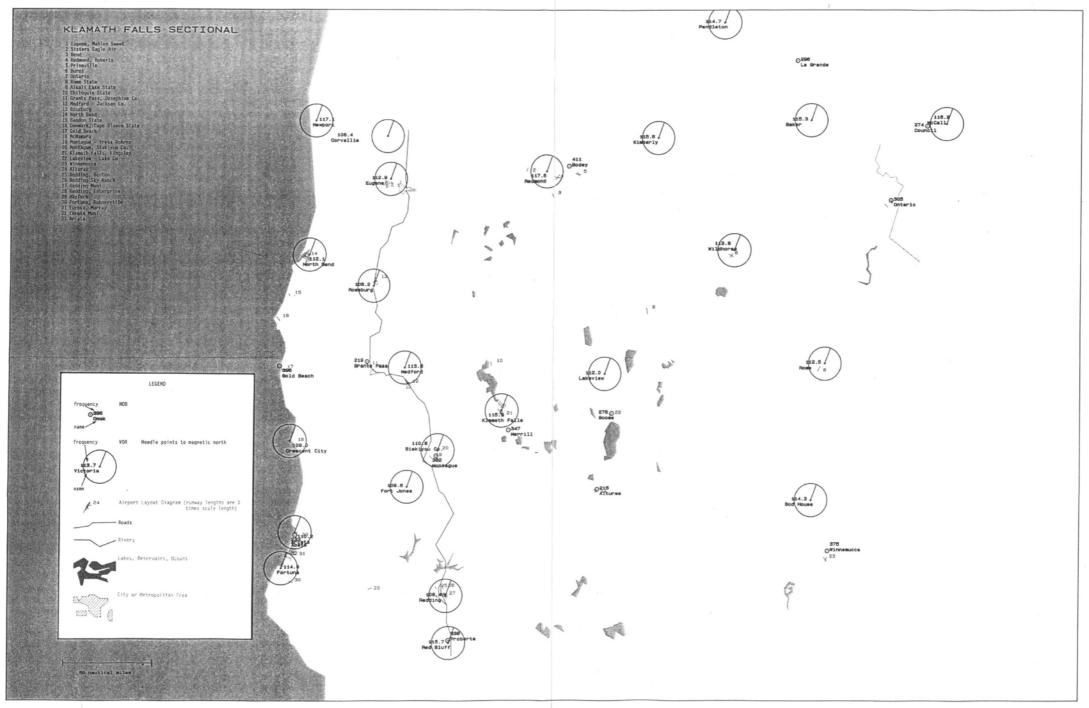
2397 X 39



#### 14 - KLAMATH FALLS Sod House (VOR) 18421N 7010E freq. 114.3 Walla Walla (VOR) 20367N 7490E freq. 116.4 Wildhorse (VOR) 19427N 7018E freq. 113.8 Winnemucca (NDB) 18215N 7013E freq. 375 Winnemucca 18187N 6997E alt. 4303 RWY 2-20 4998 X 147

4998 X 147

RWY 14-32



## SEATTLE - 1

#### Arlington 21619N 6744E alt. 138

RWY 11-29 2797 X 72

Astoria (VOR) 21017N 5941E

RWY 16-34 5329 X 98

freq. 114 Astoria, Port of Astoria

21009N 5937E alt. 10

> RWY 8-26 RWY 13-31 5057 X 196 RWY 3-21

Baker (VOR)

19811N 7453F freq. 115.3

Bellingham (VOR)

21979N 6763F freq. 113

3981 X 196

5795 X 147

Bellingham Int'l

2191N 5748E
alt. 157
RWY 15-34 4998 X 147
RWY 12-30 2181 X 72

Deer Park

21051N 8004E
alt. 2207
RWY 16-34 6097 X 72

SEATTLE - 3

2 - SEATTLE

20988N 7006E alt. 1765 Burlington, Shagit Reg./Bay View 21772N 6727E alt. 141

RWY 10-28 5362 X 147 RWY 3-21 5080 X 147 Ephrata (VOR) 21009N 7366E 6req. 112.6

RNY 1-19 4998 X 147 RNY 15-33 4998 X 147 RNY 2-20 6697 X 147

Everett, Snohomish Co

21532N 6670E
alt. 604

EWY 16-34 9006 X 147

La Grande (NDB)

Felts

20927N 7989E
alt. 1952

4496 X 147

3056 X 72

4391 X 98

4 - SEATTLE

RWY 3-21

RWY 3-21

21362N 6002E

freq. 117.7

20899N 6207E freq. 256 Kelso - Longview

20882N 6202E

RWY 11-29

alt. 16

Hoquiam (VOR)

Kelso (NDB)



#### freq. 332 Lewiston (VOR) 20346N 7937E freq. 108.2

Laker (NDB)

Lummi (NDB)

Manno (NDB)

20046N 7472E freq. 296

20601N 6227E

21913N 674RF

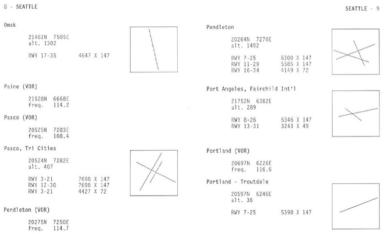
20335N 7935E freq. 374

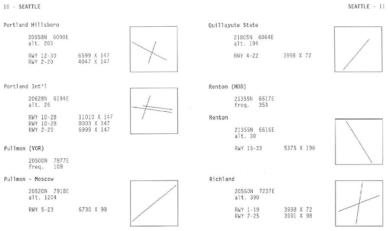
freq. 385

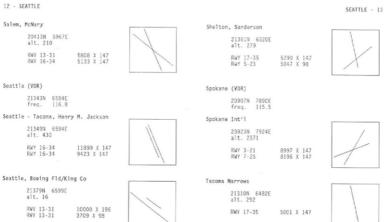
#### Lewiston - Nez Perce 20358N 7894E alt. 1437 RMY 8-26 5510 x 147 RWY 11-29 2998 y 08

SEATTLE - 5

6 - SEATTLE SEATTLE - 7 Mason Co (NDB) Newport 21359N 6342E 20410N 5615E freq. 348 alt. 161 McChord (VOR) RWY 16-34 5077 X 147 RWY 2-20 5077 X 147 21245N 6492E freq. 109.6 Moses Lake, Grant Co Ocean Shores 20930N 7370E 21386N 600BE alt. 1184 alt. 10 RWY 14-32 13500 X 298 2692 X 59 RWY 14-32 RWY 3-21 9997 X 195 RWY 0-18 3250 X 72 RWY 14-32 3024 X 72 Neah Bay (NDB) Olympia (VOR) 21969N 6139E 21226N 6345E freq. 301 freq. 113.4 Newberg (VOR) Olympia. 20586N 6051E 21226N 6346E freq. alt. 207 Newport (VOR) RWY 17-35 5398 X 147 RWY 8-26 4998 X 147 20407N 5613E freq. 117.1 Omak (NDB) 21458N 7502E 395 freq.

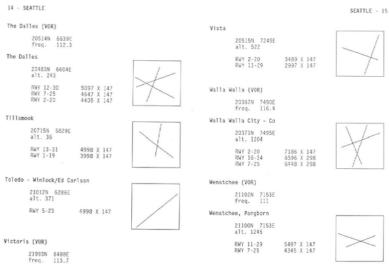








21955N 6111E freq. 112.2



## 16 - SEATTLE

#### Yakima (VOR) 20787N 6957E

freq. 116

## Yakima

20795N 6928E alt. 1096

RWY 9-27

RWY 4-22

4290 X 147

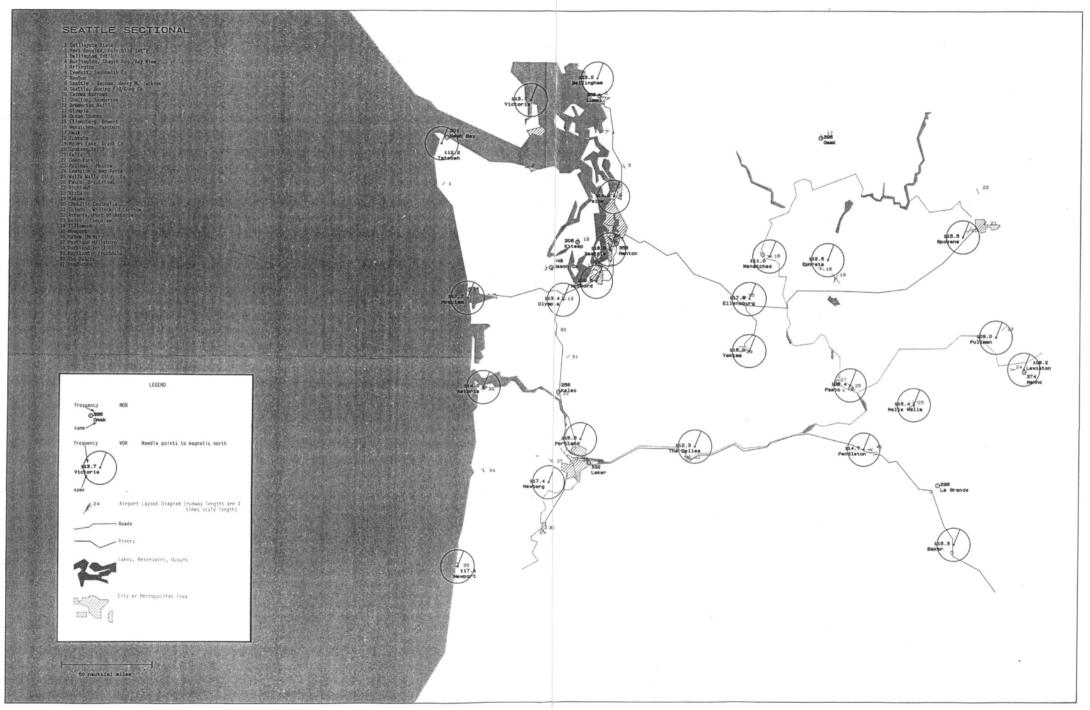












#### CHEYENNE - 1

#### 16767N 11508E freq. 114.4 Alliance (VOR) 17564N 11750E freq. 111.8 Alliance 17564N 11750E alt. 3929 RWY 12-30 6340 X 147 RWY 8-25

6310 X 72

# Antelope (NDB)

#### 17731N 97458 freq. 290

Akron (VOR)

Antioch (NDB) 17544N 11759E

RWY 17-35

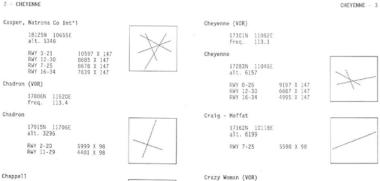
freq. 287

Boysen Reservoir (VOR)

18473N 10132F freq. 117.8

Casper (VOR)

18190N 10728F freq. 116.2





alt. 3680 freq. 117.3 RWY 12-30 4008 X 42 Denver (VOR)

16713N 10923E

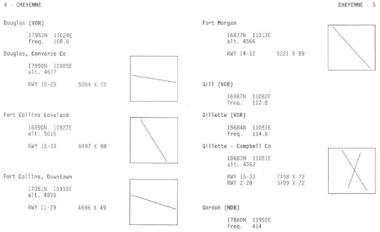
freq. 380

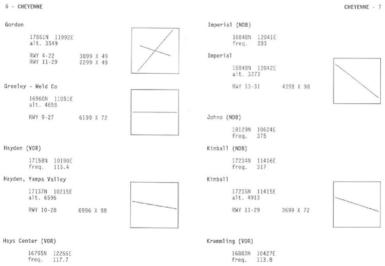
freq. 117

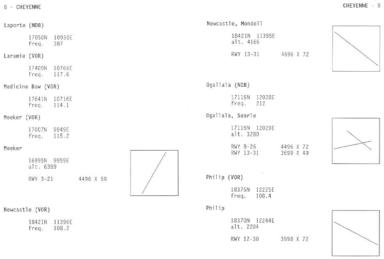
Cherokee (VOR) Deryk (NDB)

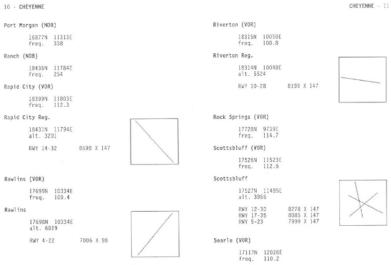
freq. 112.2

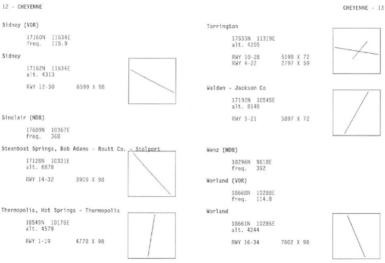
17701N 10207E 18652N 11053E

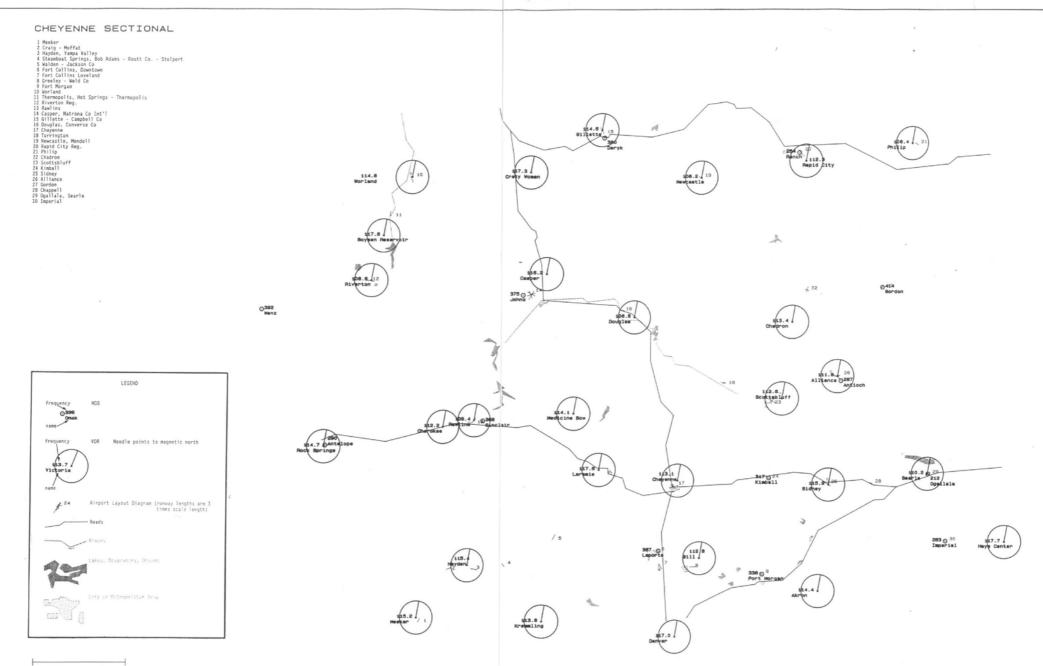




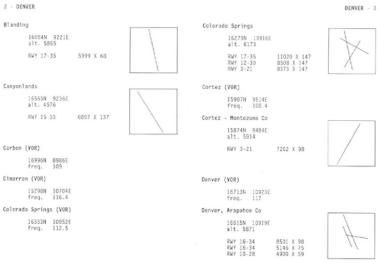


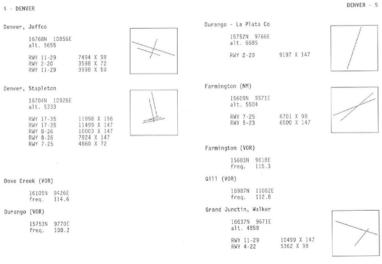


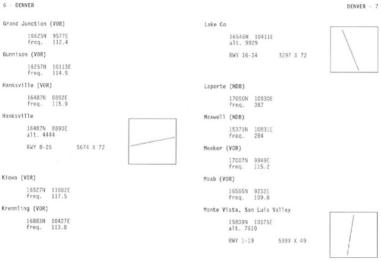


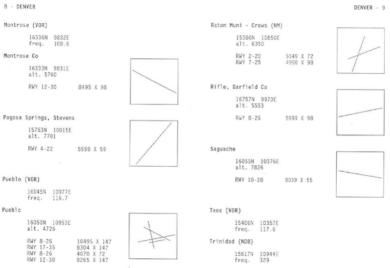


## DENVER - 1 Alamosa (VOR) 15716N 10442E freq. 113.9 Alamosa - Bergman 15761N 10434E alt. 7534 RWY 2-20 8498 X 98 Aspen - Pitkin Co., Sardy Fld. 16576N 10225E alt. 7793 RWY 15-33 7002 X 98 Aztec (NM) 15637N 9647E alt. 5878 RWY 8-26 4295 X 49 RWY 4-22 2847 X 39









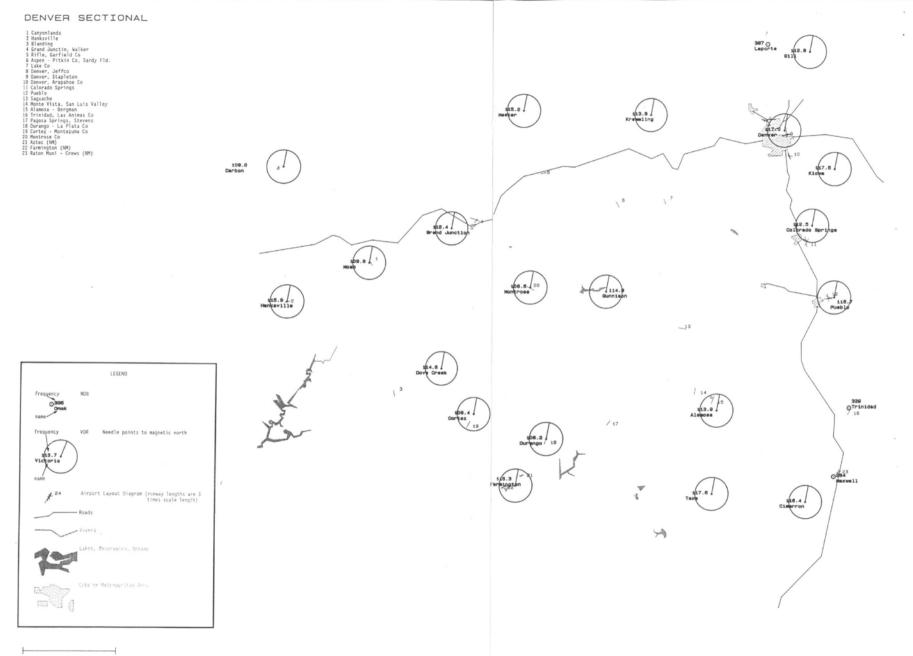
# 10 - DENVER

Trinidad, Las Animas Co

15602N 10938E

alt. 5760

RWY 3-21 5493 X 98



## Antelope (NDB) 17731N 9745E freq. 290 Battle Mountain (VOR)

18047N 7135E freq. 112.2 Bear Lake (NDB)

18196N 9086E frec. 233

Big Piney (VOR) 18234N 9503E

freq. 116.5 Big Piney

alt. 6973

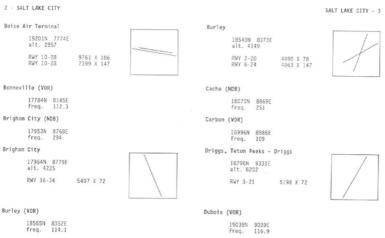
18233N 9507E RWY 12-30

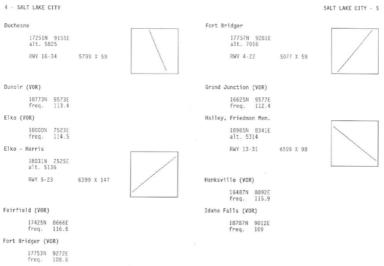
4495 X 72

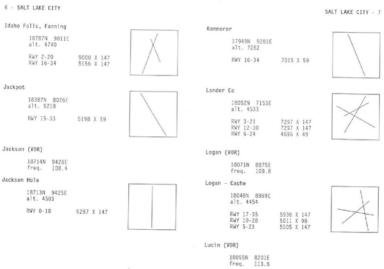
SALT LAKE CITY - 1

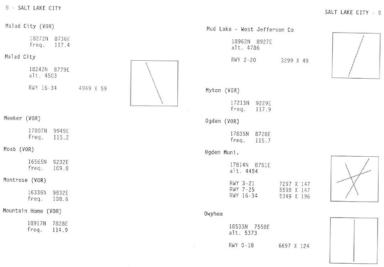
Boise (VOR) 19203N 7768E

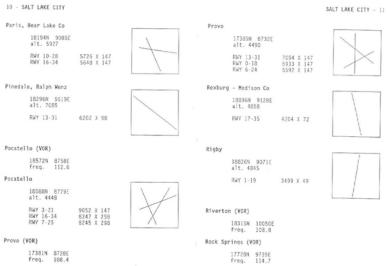
freq. 113.3















Salt Lake City (VOR)

17668N 8721E

freq. 116.8

17648N 8719F alt. 4228 PMY 16-34

RWY 16-34

RWY 14-32

Salt Lake City Int'l

Tremonton

12001 X 147 9593 X 147 5293 X 147

18047N 8760E alt. 4333

RWY 17-35 3443 X 72 Twin Falls - Sun Valley - Joslin Fld

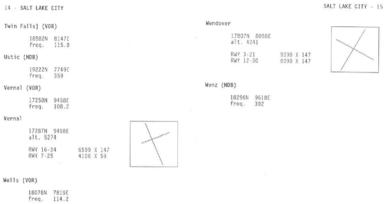
3207 X 98

18761N 8975E freq. 350

18582N 8150E alt. 4152 RWY 7-25

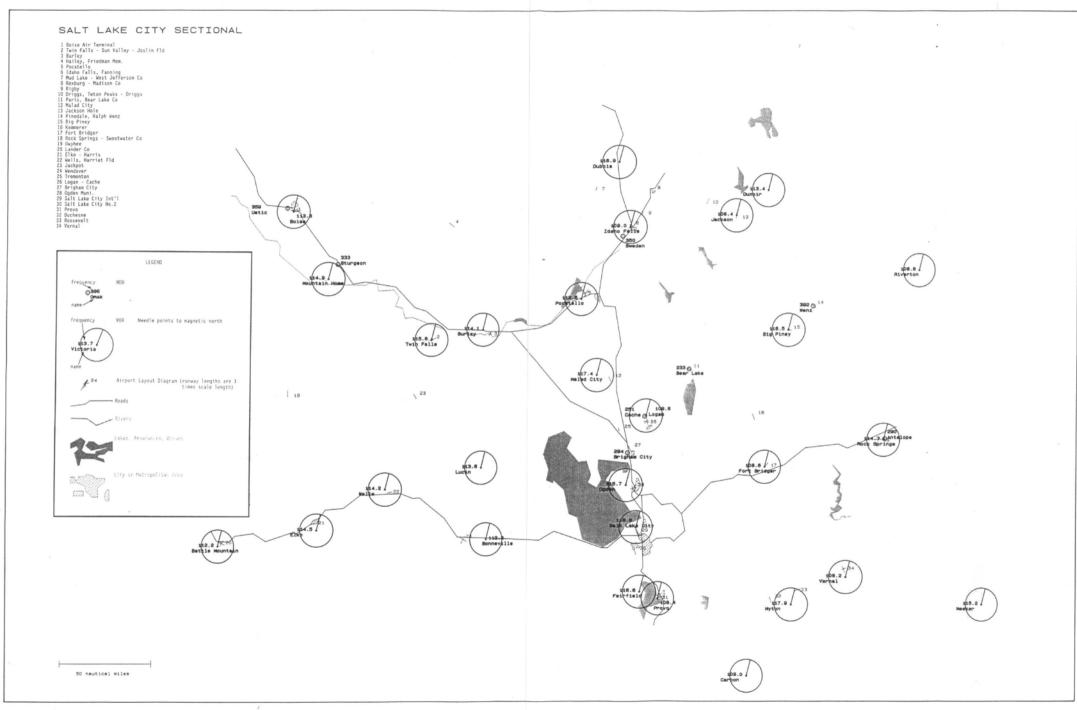
RWY 12-30

8701 X 147



Wells, Harriet Fld 18061N 7833E alt. 5773 RWY 8-26

5497 X 147



#### Ava. Martin Mem. 15038N 14862E alt. 1302

Bartlesville (VOR) 15055N 13699E freq. 117.9

RWY 13-31 3598 X 49

Beatrice (VOR)

16641N 13597E freq. 110.6 Bilmart (NDB)

15034N 14859F

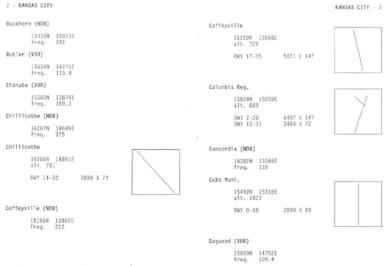
freq. 341 Brookfield (NDB)

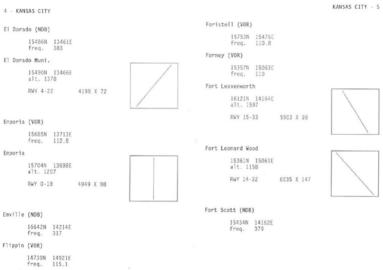
> 16249N 14780E freq. 383

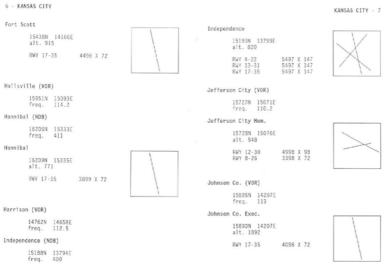
Brookfield Mem.

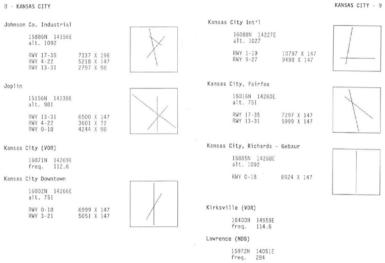
16249N 14782E alt. 807

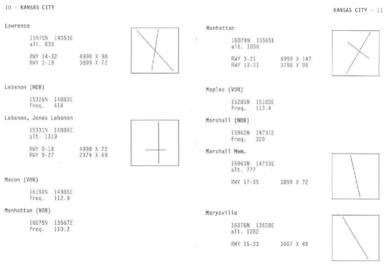
RWY 17-35 2997 X 49

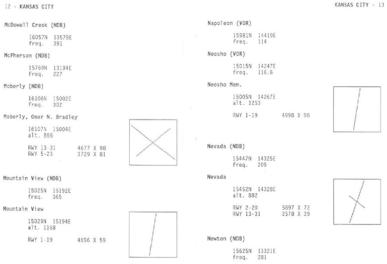


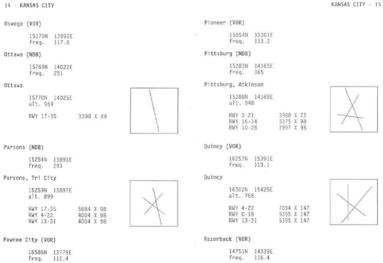


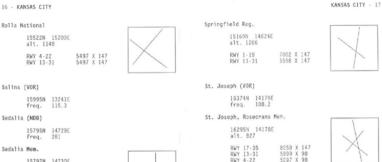














3598 X 49 RWY 5-23 15893N 15010E

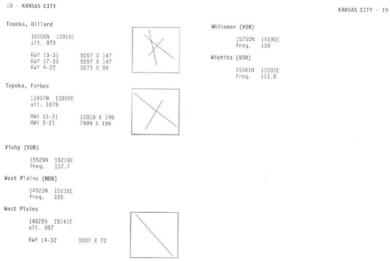
freq.

Springfield (VOR) Topeka (VOR)

freq. 116.9

16034N 13942E 15212N 14642E

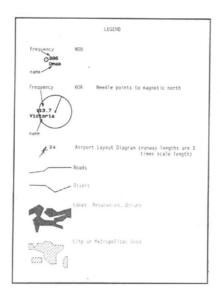
freq. 117.8

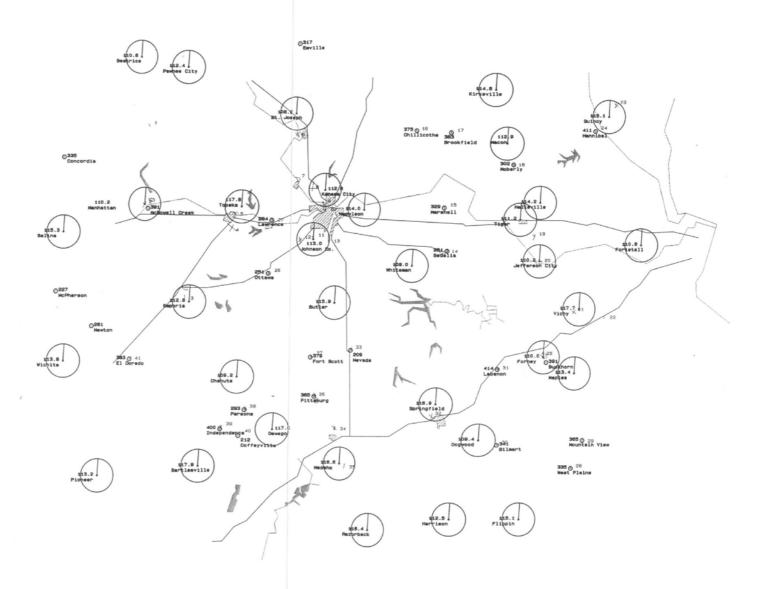


### KANSAS CITY SECTIONAL

KANSAS CITY S

1 Maryaville
2 Mahhattan
3 Enporia
4 Topeka, Forbes
5 Topeka, Billard
6 S. Loseph, Rosecrans Mem.
7 Expense of the State of the State





Ainsworth

17695N 12618E alt. 2588

freq. 112.7

RWY 17-35 6799 X 147 RWY 12-30 5497 X 88

Albert Lea (VOR)

freq. 109.8 Albert Lea

18074N 14728E

alt. 1256

18074N 14727E

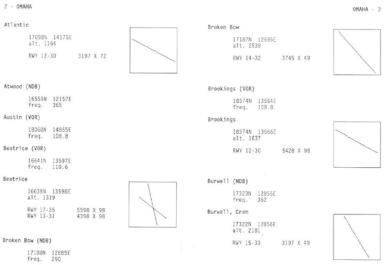
RWY 16-34 4496 X 98 RWY 4-22 2899 X 72

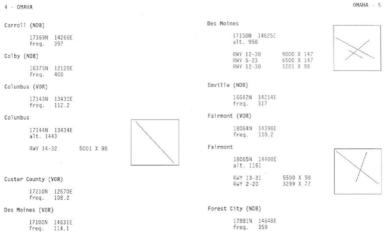
Amoni (VOR)

16736N 14521E freq. 116.7

Atlantic (NDB)

17096N 14177E freq. 365





Forest City Gorin, Wiley 17884N 14646E 18042N 12693E alt. 1230 alt. 2034 RWY 15-33 5799 X 98 RWY 13-31 3899 X 72 2699 X 59 RWV 9-27

OMAHA - 7

6 - OMAHA

Fort Dodge (VOR) Grand Island (VOR) 17614N 14431E 16962N 13103F freq. 113.5 freq. 112 Fort Dodge Grand Island, Hall Co. Reg. 17590N 14462E 16954N 13103E

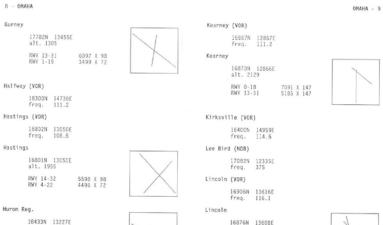
alt. 1158 alt. 1847 RWY 6-24 5545 X 147 RWY 4-22 7186 X 147 RWY 12-30 4398 X 98 RWY 17-35 6999 X 147 RWY 13-31 6605 X 147 Greenfield (NDB)

Fremont (NDB) 17129N 13595F 17058N 14371F freq. 287 freq. 338

Fremont Greenfield

17128N 13697E 17059N 14371E alt. 1204 alt. 1364

RWY 13-31 3798 X 98 RWY 13-31 2499 X 49 RWY 0-18 2351 X 49



16876N 13608E alt. 1214

RWY 17-35

RWY 14-32

RWY 17-35

12900 X 196

8619 X 147

5497 X 98

alt. 1289

RWY 12-30

RWY 17-35

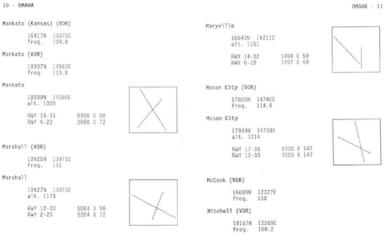
7199 X 147

2997 X 72









12 - OMAHA OMAHA - 13

# Neola (VOR)

18165N 13270E

alt. 1302 RWY 12-30

RWY 17-35

Mitchell

17130N 13980E freq. 117.1

6701 X 147

5503 X 147

### Newton (VOR) 17249N 14807E freg. 112.5

Norfolk (VOR) 17378N 13413E

freq. 109.6

Norfolk, Stefan Mem.

17376N 13413E alt. 1571

RWY 1-19 5799 X 147 RWY 13-31 5799 X 147

North Platte (VOR)

17054N 12310E freq. 117.4



RWY 12-30 RWY 12-30 RWY 8-26 RWY 17-35 O'neill (VOR)

North Platte, Lee Bird Fld 17086N 12332E

alt. 2778

17619N 13028E freq. 113.9

O'neill 17619N 13026E

Oberlin (NDB)

alt. 2030 RWY 13-31

7999 X 147

6599 X 98

4598 X 98

4434 X 98

4398 X 72

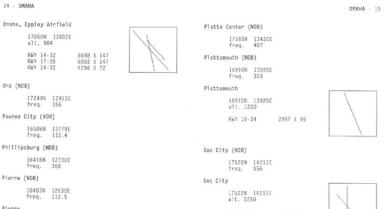
16530N 12319E

freq. 341

Omaha (VOR)

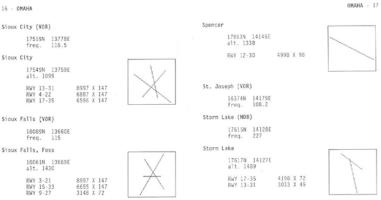
freq. 116.3

16999N 13950E





17512N 13789E freq. 414



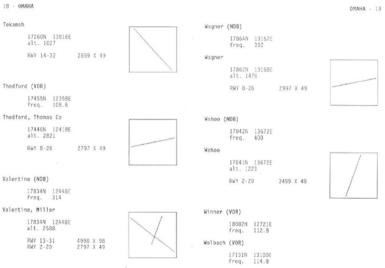
Tekamah (VOR) Spencer (VOR)

17862N 14150F

freq.

17257N 13815E

freq. 108.4



Worthington (VOR)

18073N 14037E freq. 110.6

20 - OMAHA

Yankton (VOR)

alt. 1574

RWY 17-35

RWY 11-29

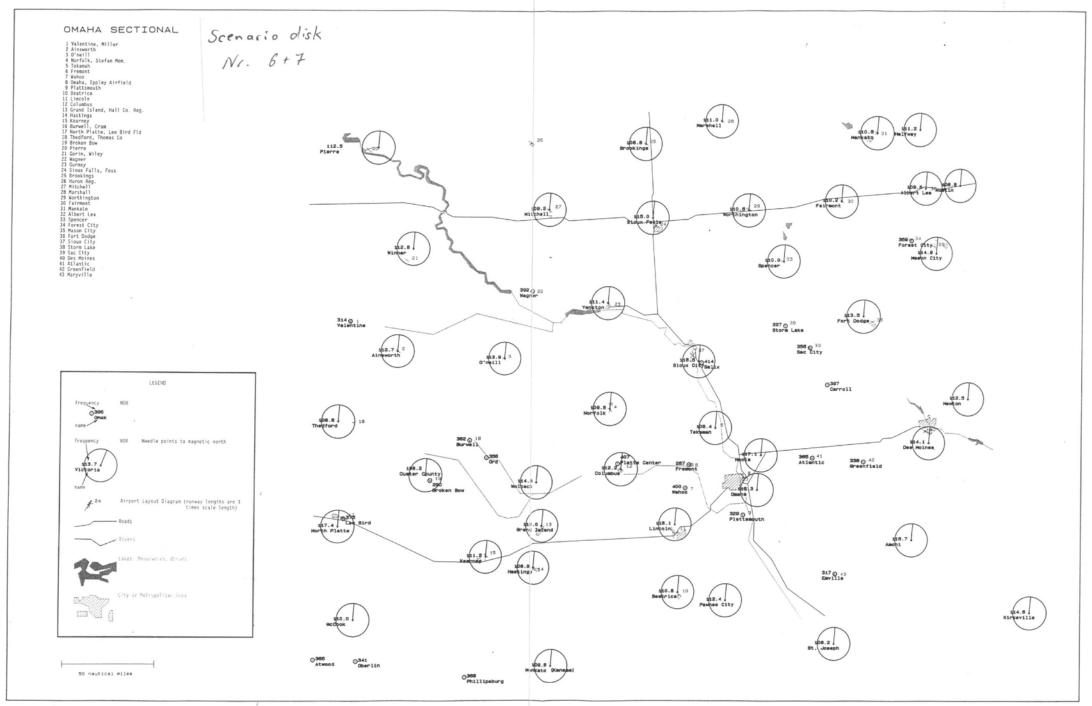
17784N 13452E freq. 111.4

5503 X 147

18077N 14038E

Worthington

4198 X 98



# WICHITA - 1

## Anthony (VOR) 15270N 12972E freq. 112.9

Akron (VOR)

Atwood (NDB) 16555N 12157F freq. 365

16800N 11472E freq. 114.4

Atwood - Rawlins Co 16556N 12156E alt. 2978 RWY 16-34 3099 X 49

Bear Creek (NDB)

15539N 11782E freq. 341

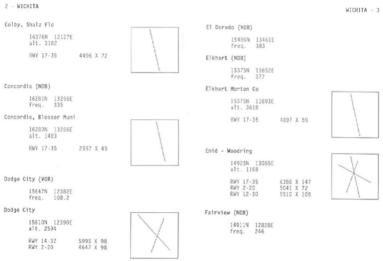
Beatrice (VOR)

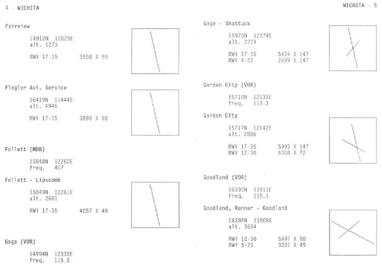
Colby (NDB)

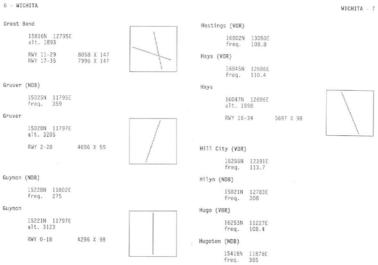
16541N 13597E freq. 110.6

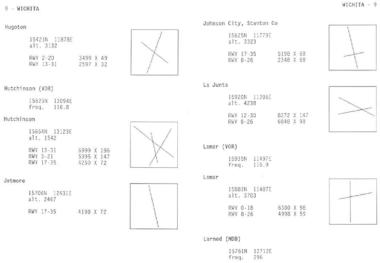
freq. 400

16375N 12128E









WICHITA - 11 Larned - Pawnee Co Lyons - Rice Co 15763N 12711E 15785N 13013E alt. 2011 alt. 1692 RWY 17-35 3548 X 59 RWY 17-35 2997 X 49 Leoti, Mark Hoard Mem. Manhattan (VOR)

15978N 11967E alt. 3303 RWY 17-35 3158 X 42 RWY 8-25 2459 X 45



10 - WICHITA

Lyons (NDB) 15786N 13013E freq. 386





freq. 110 McDowell Creek (NDB) 16057N 13579E freq. 391

16075N 13567F

freq. 110.2

16417N 13075E freq. 109.8

16689N 12327E

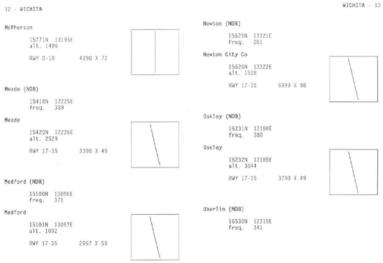
Mankato (Kansas) (VOR)

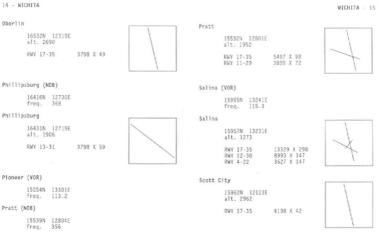
McCook (VOR)

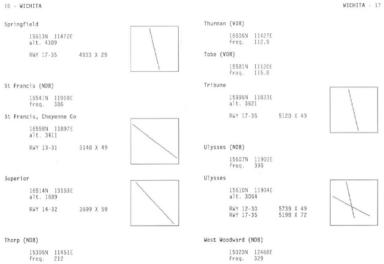
McPherson (NDB)

15769N 13194F

freq. 227







## 18 - WICHITA

Wichita (VOR)

15501N 13202E freq. 113.8

Wichita Mid - Continental 15460N 13250E alt. 1332

> RWY 1-19 RWY 1-19 RWY 14-32 6300 X 147

Woodring (VOR)

14919N 13065E freq. 109

Woodward, West Woodward

RWY 5-23

RWY 11-29

RWY 17-35

15022N 12469E alt. 2188

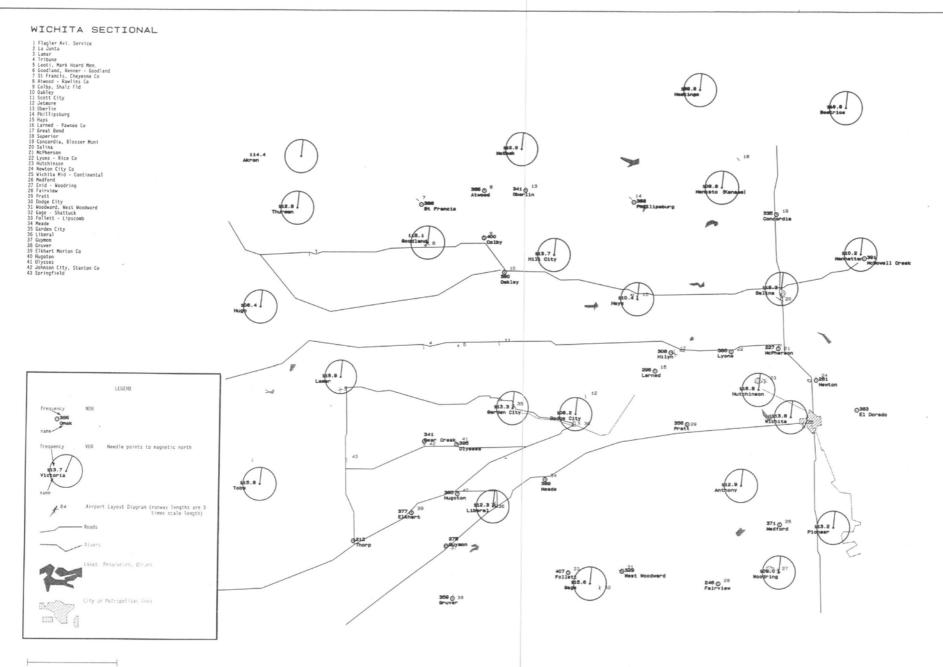
5497 X 147

5497 X 147 5497 X 147

10299 X 147

7301 X 147

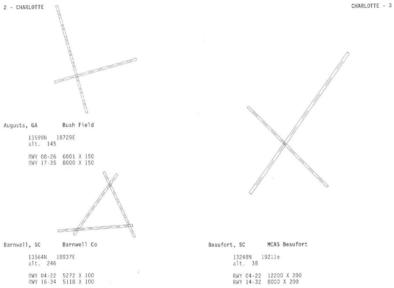


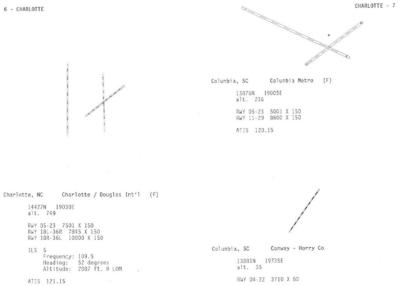


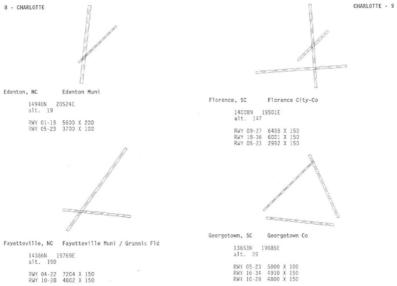


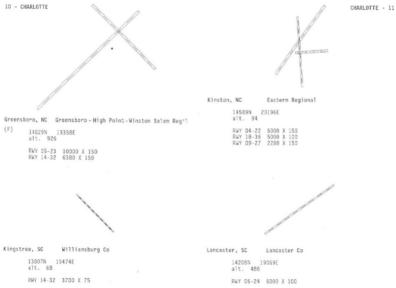
Allendale, SC Allendale Co 13454N 18991E alt. 150

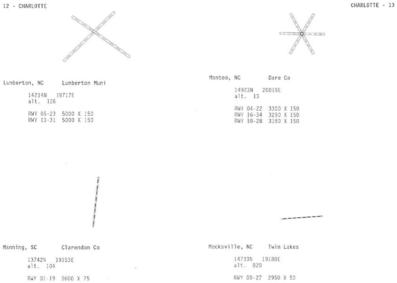
RWY 17-35 3200 X 75

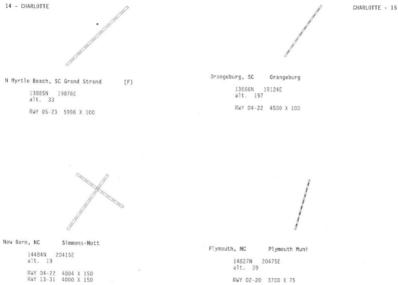


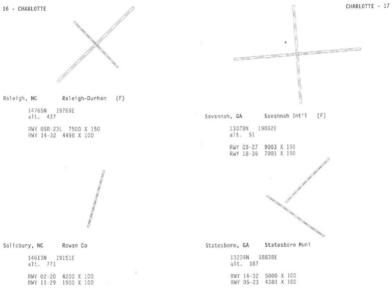


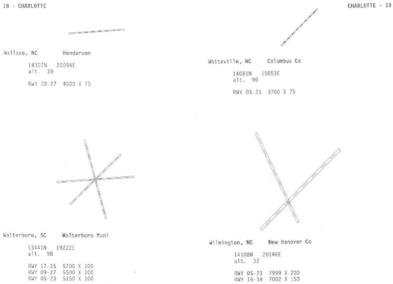


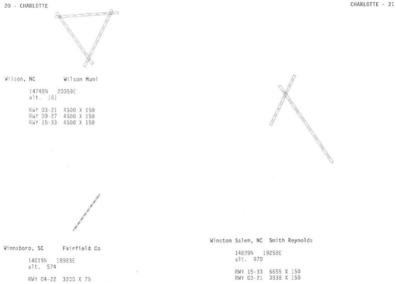




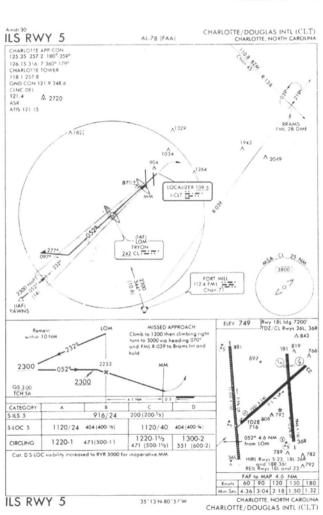






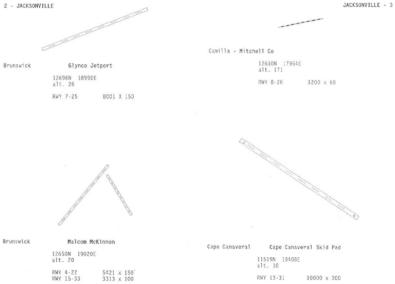


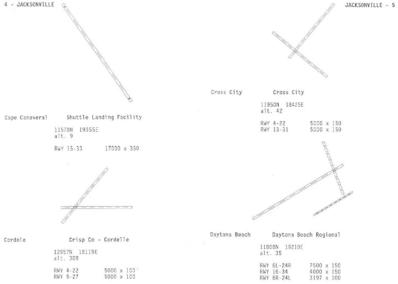
22 - CHARLOTTE	CHARLOTT	E - 23
Allendale (VOR)	Fort Mill (VOR)	
13467N 18967E freq. 116.7	14330N 19033E freq. 112.4	
Barretts Mountain (VOR)	Grand Strand (VOR)	
14703N 18907E freq. 110.8	13886N 19869E freq. 117.6	
Charleston (VOR)	Greensboro (VOR)	
13449N 19427E freq. 113.5	14810N 19345E freq. 116.2	
Charlotte (VOR)	Kinston (VOR)	
14423N 19028E freq. 110.6	14612N 20214E freq. 109.5	
Chesterfield (VOR)	Now Bern (VOR) Tar River (VOR)	
14201N 19283E freq. 108.2		0142E 17.8
Columbia (VOR)	Raleigh - Durham (VOR) Vance (VOR)	
13837N 19030E freq. 114.7		9259E 10.4
Fayetteville (VOR)	Sandhills (VOR) Wilmington (VOR)	
14385N 19771E freq. 108.8	14462N 19509E 14145N 2 freq. 111.8 freq. 1	0151E 17
Florence (VOR)	Savannah (VOR) Wright Brothers (	VOR)
14038N 19518E freq. 115.2		0845E 11.6

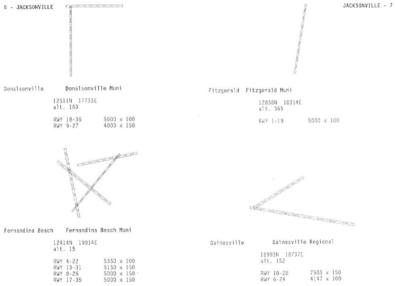


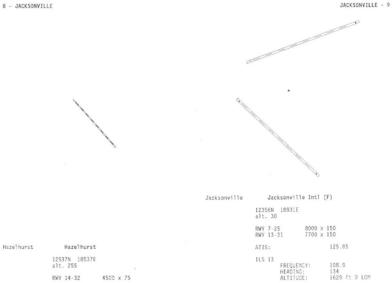
AIRPORT DIRECT	TORY - CHARLOTTE AREA	CHARLOTTE AREA CHART
CITY AIRPORT	NORTH EAST ALT. F ILS	FLIGHT SIMULATOR II REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.
	NORTH   EAST   ALT.   F   ILS   (Fuel)   (Flory Freq.)	FLIGHT SIMULATOR II REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.
Winnsboro Fairfield Co. Winston Salem Smith Reynolds	14019 18983 574 14839 19258 970	WINNSBORO FAIRFIELD CO. LUMBERTON
	LEGEND	FLORENCE 15.2 WHITEVILLE COLUMBUS CO.
SANTA MONICA ATIS 119.15 175-50  NAME FREQUENCY  NAME FREQUENCY  VI	ivil-Public use airport iriport'Name (dvisory Frequency (if available) levation (feet) — Length (hundreds of feet)  OR  ORTAC (Distance Measuring Equipment Able)	COLUMBIA METRO ATTS 120.15  AIKEN MUNI  AUGUSTA BUSH FLD  BARNWELL CO.  BARNWELL CO.  ALLENDALE CO.  BARNWELL CO.  ALLENDALE CO.  BARNWELL CO.  GEORGETOWN  ALLENDALE CO.
VOR/DME If \ NAME SY FREQUENCY Sh	on Directional Beacon  VOR falls directly on an airport, only the airport mbol will be shown. The VOR facility type is own at the top of the box.	ALLENDALE 116.7  WALTERBORO  CHARLESTON 113.5  Nautical Miles Statute Miles  CHARLESTON 12.5  Nautical Miles 1.1  Nautical Miles 0 10 20 30 40 50  Nautical Miles 1.1  Nautical Miles 0 10 20 30 40 50
FLD Fie	ounty eld ternational unicipal	North and east coordinates are canted at + 7° (clockwise) to compensate for orthogonal coordinate grid overlaid on Lambert conformal conic projection.



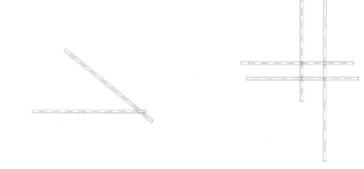




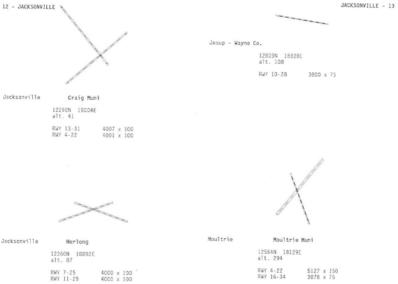


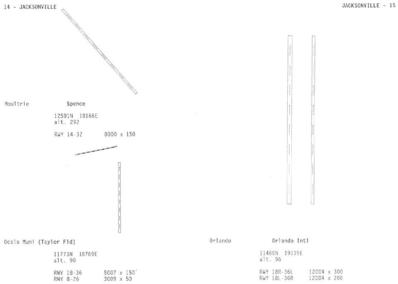


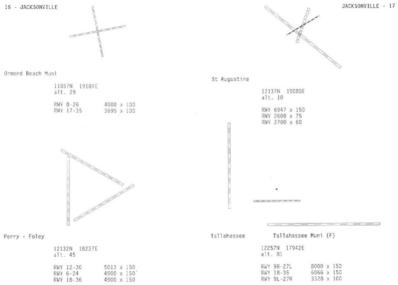
JACKSONVILLE - 11 10 - JACKSONVILLE

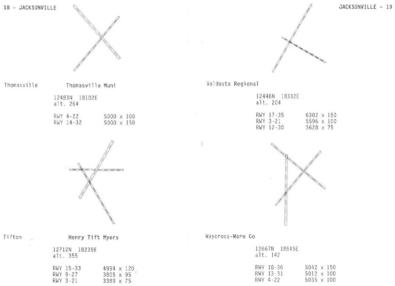


		Jacksonville	Cecil Fiel	d NAS
Jacksonville	Jacksonville NAS		12238N 18851E alt. 80	
	12247N 18942E alt. 22		RWY 18L-36R RWY 9L-27R	12500 x 200 8000 x 200
	RWY 9-27 8000 RWY 13-31 5977		RWY 9R-27L RWY 18R-36L	8000 x 200 8000 x 200









JACKSONVILLE - 21

Donalsonville (NDB) 11463N 18701E 12512N 17735E freq. 278 freq. 352

20 - JACKSONVILLE

freq. 201

Brunswick (VOR) Gainesville (VOR) 12606N 19005E 11939N 18706E freq. 109.8 freq. 116.2 Caidy (NDB) Geiger Lake (NDB)

12472N 18003E 11562N 19315E freq. 338 freq. 375 Camilla (NDB) Herlong (NDB)

12610N 17965E 12261N 18893E freq. 369 . freq. 332

Cape Canaveral (NDB) Homerville (NDB) 11515N 19429E 12576N 18511F freq. 313 freq. 209

Cross City (VOR) Jacksonville (VOR)

11933N 18447E 12299N 19003F freq. 112

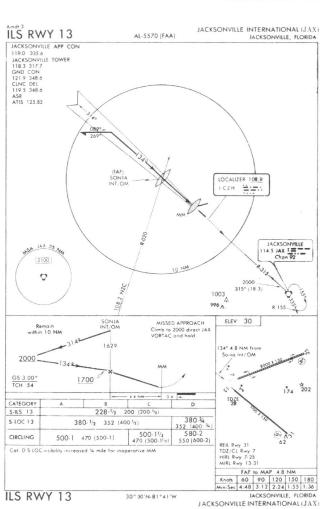
freq. 114.5

Deland (NDB) Kissimmee (NDB)

freq. 329

11753N 19131E 11415N 19099F

22 - JACKSONVI	LLE			JACKS0	NVILLE - 23
Lakeland (VOR)		Satellite (NDB)			
11251N freq.	18885E 116	11355N freq.	19383E 257		
Leesburg (NDB)		Savannah (VOR)			
11631N freq.	18934E 335	13103N freq.		24 - JACKSO	WILLE
Melbourne (VOR)		St Augustine ()	(OR)	Tift Myers	VOR)
11358N freq.	19399E 110	12140N freq.	19073E 109.4	127 fre	
Ocala (VOR)		St Johns (NDB)		Valdosta (V	R)
11773N freq.	18768E 113.7	12322N freq.	19045E 305	124 fre	
Orlando (VOR)		St. Petersburg	(VOR)	Vidalia (ND	3)
	19127E 112.2	11203N freq.	18631E 116.4	130 fre	76N 18622E 372
Ormond Beach (VOR)		Tallahassee (V0	R)	Wakul (NDB)	
11859N freq.	19185E 112.6	12326N freq.	17928E 117.5	122 fre	27N 17938E q. 379
Patten (NDB)		Taylor (VOR)		Wayeross (V	OR)
12510N freq.	18123E 245	12340N freq.	18607E 112.9	126 fre	
Sanford (NDB)		Taylor (VOR)		Wynds (NDB)	
11629N freq.	19156E 408	12342N freq.	18605E 112.9	119 fre	



AIRPORT	DIRECTORY - J	JACKS	IIVNC	LE /	ΔRFΔ	JACKSONVILLE AREA CHART
CITY	AIRPORT	NORTH		ALT.	F ILS	FLIGHT SIMULATOR II REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.
Alma	Bacon Co.	12789	18598	201	uel) (Rwy/Freq)	FLIGHT SIMULATOR II REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.
Brooksville	Hernando Co.	11461	18702	76		VIDALIA, GA 372 SAVANNAH SAVANNAH
Brunswick	Glynco Jetport	12696	18990	26		372 112.7
Brunswick	Malcom Mckinnon	12650	19020	20		CRISP CO. CORDELE
Camilla Cape Canaveral	Mitchell Co. Canaveral Skid Pad	12610 11519	17964 19408	171 10		A STATE OF THE STA
Cape Canaveral	Shuttle Landing Facility	11578	19355	9		HAZELHURST
Cordele	Crisp Co Cordele	12957	18119	308		4 5
Cross City Daytona Beach	Cross City	11950	18425	42		FITZGERALD MUNI
Donalsonville	Daytona Beach Regional Donalsonville Muni	11808 12511	19210 17733	35 160		ALMA, GA 115.1
	Fernandina Beach Muni	12414	19014	15		TIFT MYERS, GA
Fitzgerald	Fitzgerald Muni		18314	365		112.5 BACON CO. WAYNE CO.
	Gainesville Regional Hazelhurst		18737 18537	152		1
	Jacksonville Int'l		18931	255 30	* 108.9/13	CAMILIA HENRY TIFT MYERS WARE CO.
ATIS 125.85		.2000	10001	00	100.5/10	SLYNCO JETPORT
Indiana di Ma	1-1					MITCHELL CO.
	Jacksonville NAS Cecil Field NAS		18942 18861	22 80		DONALSONVILLE SPENCE WAYCROSS, GA
	Craig Muni		19004	41		352  THE MOULTRIE MUNI  AMAGOM MCKINNO  THE MUNI  THE MU
Jacksonville	Herlong	12260	18892	87		
	Wayne Co. Moultrie Muni		18828	108		DONAL SOMULIE ALIMI
	Spence		18129 18166	294 292		209
Ocala (Taylor)	Ocala Muni (Taylor)		18769	90		THOMASVILLE MUNI
	Orlando Int'I		19139	96		TAILAHASSEE, FL VALDOSTA REGIONAL FERNADINA BEACH MUNI
	Ormond Beach Muni Folev		19184 18237	29 45		JACKSONVILLE
	St. Augustine		19080	10		VALDOSTA, GA
	Tallahassee Muni	12257	17942	81		110.4 JOHNS ST JOHNS
	Thomasville Muni Henry Tift Myers		18102 18239	264 355		TAYLOR, FL TAYLOR, FL
	Valdosta Regional			204		TALIAHASSEE MUNI 18 112.9 HERLONG 332 CRAIG MONI
	Ware Co.			142		WAKUL CECIL FIELD NAS CECIL FIELD NAS
						379 18
	15051					FOLEY
	LEGEN	ID				GAINESVILLE, FL ST. AUGUSTINE ST. AUGUSTINE
0 4 13	Civil-Public	use airpor	t			GAINESVILLE, PL 116.2
- + -						GAINESVILLE RÉGIONAL
9	Restricted/F having eme					CRÓSS CITY / A A
	_		e or rain	uiiiaik	value	WYNDS 259 259 19
SANTA MONICA ATIS 119.15	Airport Nar		if a:!!-	hla)		the desired the second
175-50	Advisory Fr Elevation (f				of feet)	CROSS CITY, FL
		-, 201	J ,			1120
NAME ®	VOR					
FREQUENCY						QRIMOND BEACH MUNI O
NAME						
FREQUENCY	VORTAC (D	istance Me	easuring	Equip	ment Able)	OCALA, FL OCALA MUNI (TAYLOR) DELATION
						OCALA MUNI (TAYLOH)  DELAND 201
NAME @	VOR/DME					
FREQUENCY	TOTAL					SANFORD 408
						LEESBURG TO LEESBURG
NAME	Non Direction	onal Beaco	n			335
FREQUENCY	<i>y</i>					BROOKSVILLE OPLANDO 112.2
_VOR/DME	If VOR falls d	irectly on a	n airpor	t, only t	the airport	278
NAME	symbol will b	be shown. 7	The VOR	facility	typeis	Statute Miles 5 1 1 1 1 1 GEIGER
REQUENCY	shown at the	top of the l	box.			0 10 20 30 40 50 REHNAND CO. ORLANDO INTL. II GEIGER
IRPORT NAME AB						
CO	County					North and East coordinates are canted at + 6° (clockwise) to compensate for ortho-
NTL	Field International	ı				gonal coordinate grid overlaid on Lambert con-
INUN	Municipal					formal conic projection.
(PVT)	Private Airpo	ort (prior pe	rmissio	n befor	e landing)	E 257
						1.

MCKINNON

LAUGUSTINE FE

GEIGER LAKE 375

SATELLITE 0 A

CAPE CANAVERAL 313

CANAVERAL SKID PAD

MELBOURNE 110.0



RWY 8-26 RWY 13-31



3999 x 100

Ft	Myers,	Page	Fld	
			10651N	18984F

alt.	. 18			
	5-23	6401		
RWY	13-31	4997	х	150

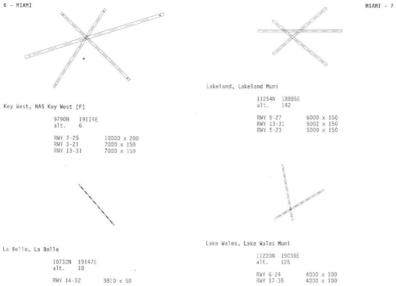
2 - MIAMI - 3

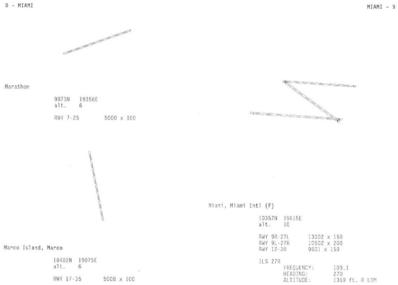


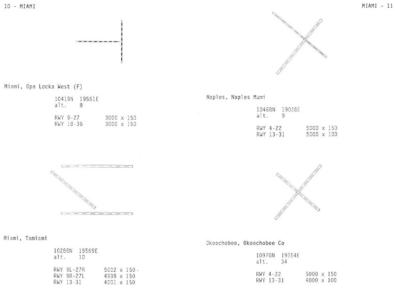
| Ft Pierce, St Lucie Co Intl | 11083N | 19528E | alt. | 24

Ft Myers, SW Florida Regional alt. 24

10534N 19027E RKY 9-27 5000 x 200
11. 31 RKY 4-22 5000 x 200
RKY 4-22 5000 x 200
RKY 14-32 5000 x 100
RKY 18-34 8400 x 150 RKY 18-35 5000 x 200







12 - MIAMI MIAMI - 13



## Pahokee, Palm Beach Co Glades

RWY 17-35

RWY 7-25

10770N 19429E alt. 17 4620 x 75



# Pompano Beach, Pompano Beach Airpark

10558N 19674E alt. 20 RWY 14-32

RWY 5-23

RWY 10-28

4420 x 150

3500 x 100

10791N 18922E alt. 25

Punta Gorda, Charlotte Co

RWY 3-21 RWY 9-27 RWY 15-33





Sarasota, Sarasota-Bradenton
10983M 18696E

28

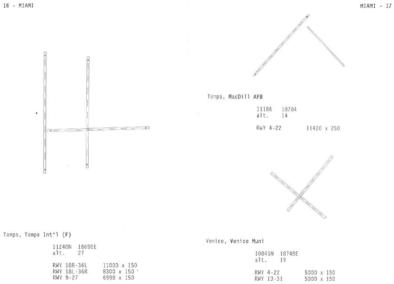
RWY 14-32

5190 x 300



RWY 17R-35L

4000 x 75

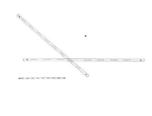


18 - MIAMI - 19



RWY 11L-29R

2637 x 50



ALTITUDE:

1906 ft @LOM

West Palm Beach, Palm Beach Intl (F) 10746N 19662E alt. 19 RWY 9L-27R 7989 x 150 RWY 13-31 RWY 9R-27L 6930 x 150 3152 x 75 Vero Beach, Vero Beach Muni (F) 11154N 19505E alt. 25 ATIS: 123.75 ILS 9L RWY 11R-29L 7180 x 100 FREQUENCY: 109.3 RWY 4-22 4975 x 100 ' HEADING:

22 - MIAMI - 23





Marsh Harbour South Bimini

5000 x 150

10783N 20830E

alt. 10

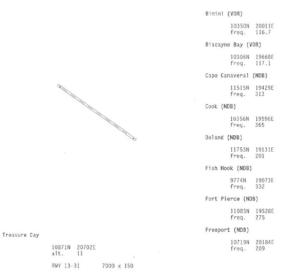
RWY 9-27

. .

10350N 20020E alt. 10

5000 x 150

24 - HIAMI MIAMI - 25



26 - MIAMI	HIAMI - 27
Freeport (VOR)	Kissimmee (NDB)
10735N 20210E freq. 113.2	11415N 19099E freq. 329
Ft Lauderdale (VOR)	La Belle (VOR)
10477N 19662E freq. 111.4	10769N 19159E freq. 110.4
Ft Myers (VOR)	Lakeland (VOR)
10653N 18982E freq. 117.6	11251N 18885E freq. 116
Ft Pierce (NDB)	Leesburg (NDB)
11084N 19529E freq. 275	11631N 18934E freq. 335
Ft. Lauderdale (VOR)	Marathon (NDB)
10478N 19663E freq. 111.4	9863N 19340E freq. 260
Ft. Myers (VOR)	Marsh Harbour (NDB)
10652N 18983E freq. 117.6	10783N 20831E freq. 361
Geiger Lake (NDB)	Melbourne (VOR)
11562N 19315E freq. 375	11346N 19407E freq. 110

Miami (NDB)

10345N 19682E freq. 322

Key West (VOR)

9791N 19067E freq. 113.5

28 - MIAMI	MIAMI - 29
Miami (VOR)	Punta Gorda (VOR)
10422N 19547E freq. 115.9	10791N 18924E freq. 110.2
Nassau (VOR)	Rubin (NDB)
10133N 20759E freq. 112.7	10743N 19619E freq. 356
OCALA ,FL (VOR)	Sanford (NDB)
11770N 18767E freq. 113.7	11629N 19156E freq. 408
Orlando (VOR)	Sarasota (VOR)
11527N 19127E freq. 112.2	10985N 18695E freq. 115.2
Pahokee (VOR)	Satellite (NDB)
10772N 19430E freq. 112.4	11334N 19381E freq. 257
Palm Beach (VOR)	Sebring (NDB)
10742N 19667E freq. 115.7	11041N 19156E 30 - MIAMI freq. 382

10847N 20741E

freq.

10867N 20710E freq. 112.9

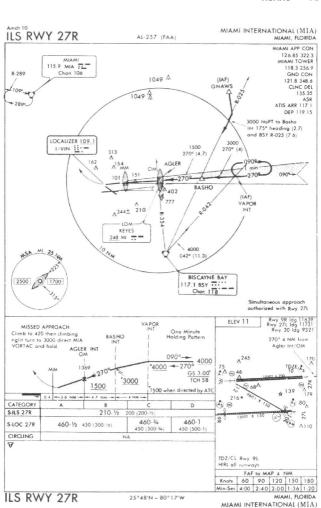
10503N 19636E

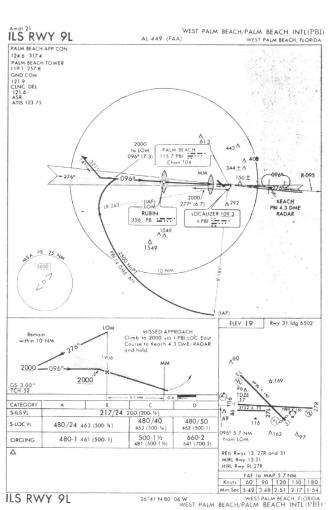
freq. 242

Treasure Cay (VOR) St. Petersburg (VOR) Perrine (NDB)

11203N 18631E freq. 116.4 10287N 19543E freq. 266

Vero Beach (VOR) Plantation (NDB) Treasure Cay (NDB)



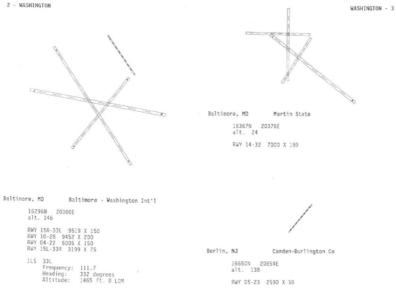


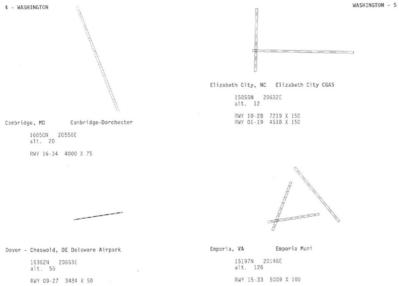
	RT DIRECTOR				MIAMI AREA CHART
CITY AIRE	PORT	NORTH EAST	ALT. F	ILS (Rwy/Freq)	FLIGHT SIMULATOR II REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.
Ft Lauderdale Ft Light Myers Ft Myers Ft Pierce Ft Myers Ft Myer Ft Myers Ft Myers Ft Myers Ft Myer Ft	auderdale Exec a Flot Florida Regional ucia Co. Int'l r Ranch Resort estead General okalee West Int'l Key West elle land Muni Wales Muni thon tho ni Int'l Locka West ami as Muni chobee Co. Beach Co. Glades bano Beach Airpark lotte Co. water Int'l soft Bradenton ng Airport/Ind. Park is Int'l Whuni Beach Muni Palm Beach Int'l w Muni  o Town out Int'l d Bahama Aux AF i Harbour	10532 19650 10651 18984 10634 19027 11083 19528 11184 19200 10223 19528 10599 19167 9779 19085 9790 19114 10732 19147 11254 18885 11220 19039 9873 19356 10402 19075 10357 19615 10419 19561 10288 19569 10468 19028 10970 19354 10770 19429 10558 19674 10791 18922 111205 18630 10983 18696 11041 19160 11240 18690 11186 18704 10845 18748 11154 19505 10746 19662 11241 18979  9749 20746 10737 20209 10782 20338 10783 20830 10136 20749 10350 20020 10871 20702	14 18 31 24 55 9 37 4 6 18 142 125 6 6 10 8 10 9 34 17 20 25 11 28 6 37 14 14 20 21 21 21 21 21 21 21 21 21 21 21 21 21	* 109.1/27R	TIMO NITE DESCRIPTION OF THE PROCESS
	LEGENI				KEY WEST INT'L 200
#7 A F					SONGO TOWN
SANTA MONICA ATIS 119.15 175-50				of feet)	
NAME FREQUENCY *		tance Measurin	g Equipm	ent Able)	
NAME FREQUENCY 9	VOR/DME				Nautical Miles 0 10 20 30 40 50
NAME FREQUENCY	Non Direction	nal Beacon			Statute Miles 0 10 20 30 40 50  North and east coordinates are canted af
VOR/DME_ NAME FREQUENCY		ectly on an airpo shown. The VO op of the box.			+ 5° (clockwise) to compensate for ortho- gonal coordinate grid overlaid on Lambert con- formal conic projection.

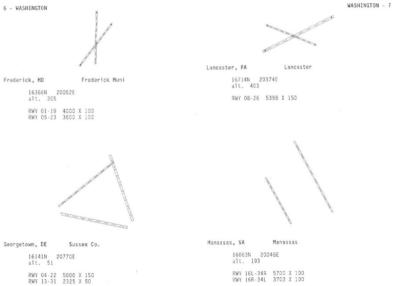


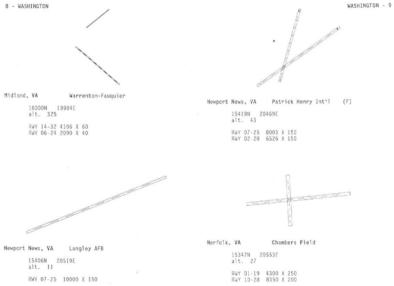
Atlantic City, NJ Atlantic City (F) 16507N 20982E alt. 76

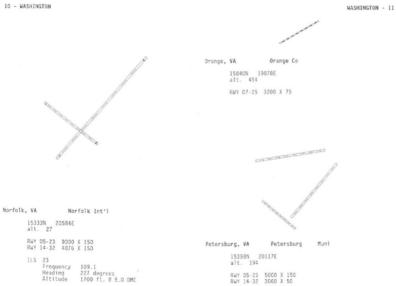
RWY 04-22 6144 X 150











12 - MASHINGTON - 13





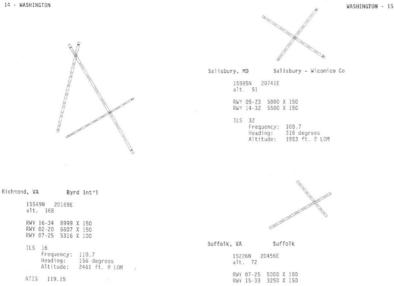
alt. 21 RWY 09L-27R 9500 X 150 RWY 09R-27L 10500 X 200 RWY 17-35 5460 X 150

16651N 20733E

ILS 9R Frequency: 109.3 Heading: 85 degrees Altitude: 1856 ft. 0 LOM



Philadelphia, PA Northeast Philadelphia (F) 16751N 20801E alt. 121 RWY 06-24 7000 X 150 RWY 15-33 5000 X 150



16 - WASHINGTON WASHINGTON - 17





Trenton.	NJ	Mercer	Co.

16849N 20854E alt. 213

RWY 06-24 6006 X 150 RWY 16-34 4800 X 150 RWY 11-29 2999 X 150

Virginia Beach, VA Oceana NAS 15307N 20649E alt. 22

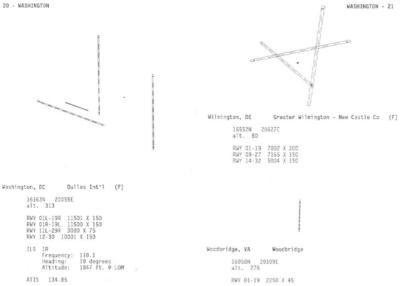
RWY 05R-23L 12000 X 200 RWY 14L-32R 8000 X 150 RWY 14R-32L 8000 X 200

18 - WASHINGTON - 19





	Washington, DC Washington Nat'l	
Mashington, DC Andrews AFB 16127N 20255E	16135N 20192E alt. 16	
alt. 281 RWY 01L-19R 9300 X 200	RMY 03-21 4905 X 150 RMY 15-33 5189 X 200	



16506N 20983E freq. 108.5 Baltimore (VOR) 16292N 20302E freq. 115.1 Brooke (VOR) 15904N 20116E freq. 111.8 Cape Charles (VOR) 15535N 20630E freq. 112.2 Casanova (VOR) 16014N 19928E freq. 116.3 Cedar Lake (VOR) 16522N 20848E

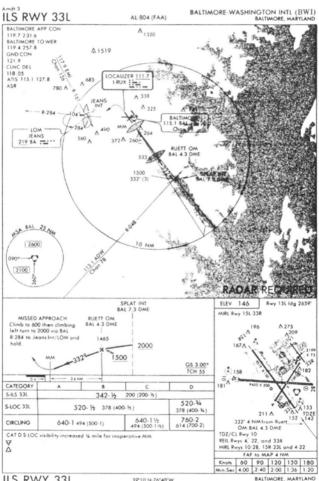
York, PA York 16601N 20199E alt. 486

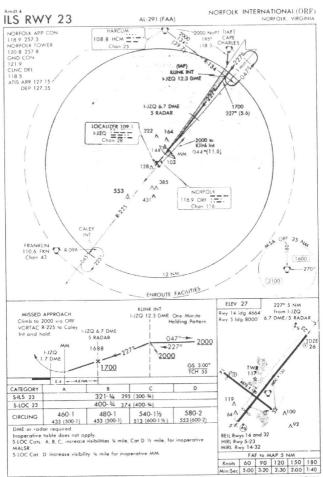
RWY 16-34 4190 X 100

freq. 115.2

24 - MASHINGTON	WASHINGTON - 25
Cofield (VOR)	Hagerstown (VOR)
15079N 20382E freq. 114.4	16469N 19881E freq. 109.8
Coyle (VOR)	Harrisburg (VOR)
16666N 21009E freq. 113.4	16736N 20130E freq. 112.5
Dupont (VOR)	Hopewell (VOR)
16552N 20627E freq. 114	15479N 20248E freq. 112
Elizabeth City (VOR)	Kenton (VOR)
15053N 20629E freq. 112.5	16366N 20684E freq. 111.4
Flat Rock (VOR)	Lancaster (VOR)
15537N 19995E freq. 113.3	16715N 20377E Freq. 117.3
Franklin (VOR)	Lawrenceville (VOR)
15219N 20317E freq. 110.6	1522BN 20003E freq. 112.9
Frederick (VOR)	Martinsburg (VOR)
16366N 20054E freq. 109	16335N 19898E freq. 112.1
Gordonsville (VOR)	Middle River (VOR)
15734N 19859E freq. 115.6	16368N 20376E freq. 116.6

freq. 115.3

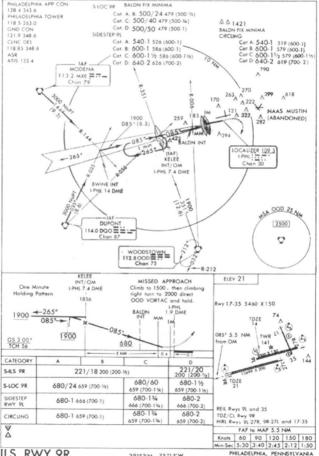


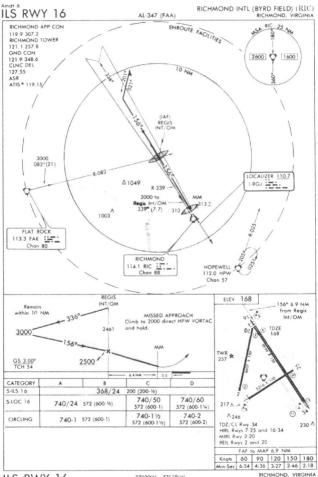


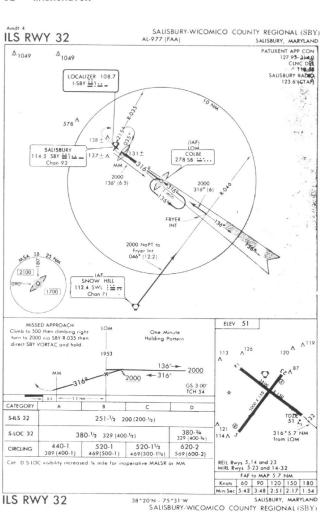
# ÎLS RWY 9R

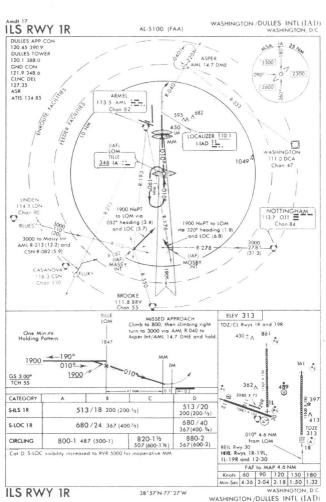
AL-320 (FAA)

PHILADELPHIA INTERNATIONAL (PHI.) PHILADELPHIA PENNSYLVANIA









AIDDODT DID	CTORY WASHINGTON AREA	WASHINGTON AREA CHART
CITY AIRPORT DIRE	T NORTH EAST ALT. F ILS	
AINFOR	(Fuel) (Rwy/Freq)	FLIGHT SIMULATOR II REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.
Atlantic City Atlantic C	City Int'l 16507 20982 76 *	HARRISBURG  LANCASTER  O POTTSTOWN 116.5  TRENTON MERCER CO
Baltimore Washing	on Int'l 16296 20300 146 111.7/33L	117.3 MERCER CO.
Baltimore Martin St		ANY ACTER DA
	Burlington Co. 16650 20854 138 ge-Dorchester 16050 20550 20	18 O PHILADELPHIA INT L PERI IN CAMPEN
Dover-Cheswold Delaware		YORK YORK MODENA
Elizabeth City Elizabeth	City 15055 20632 12	1132 DUPONT
Emporia Emporia		COYLE 1-
Frederick Frederick Georgetown Sussex (		MAGENSIOWN 10 WEST-WISTED
Lancaster Lancaste		117.9 GREATER WILMINGTON A RECEDEN LAKE
Manassas Manassa		NEW CASILE CO. 1152
	n-Fauquier 16000 19984 325	MARTINSBURG 112.1  MIDDLE RIVER 112.8  WOODSTOWN 112.8  ATLANTIC CITY INTE
Newport News Langley A Newport News Patrick H		
Norfolk Chamber		FREDERICK 109.0 BALCHMORE TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL
Norfolk In	t'l 15333 20584 27 109.1/23	
Orange Orange (		
Petersburg Petersbu Philadelphia Philadelp		SHAWNEE A BALTIMORE WASHINGTON INTL DOVER-CHESWOLD DELAWARE AIRPARK
ATIS 133.40		WASHINGTON DULLES NTL WASHINGTON BALTIMORE 1148
	Philadelphia 16751 20801 121 *	ATIS 134.85
Richmond Byrd Int'l ATIS 119.15	15549 20169 168 110.7/16	WATERLOO 112.6
	-Wicomico Co. 15985 20741 51 108.7/32	ANDHEWS AFB A
Suffolk Suffolk	15226 20456 72	GEORGETOWN GEORGETOWN
Trenton Mercer C		MANASSAS WOODBRIDGE  ANDREWS AFB CAMBRIDGE  113
Virginia Beach Oceana I Washington Andrews		
Washington Washingt		MIDLAND MIDLAND WARRENTON-FAUQUIER
Washington Dulles Int	1 16163 20055 313 * 110.1/1R	
ATIS 134.85 Wilmington Greater V	Vilmington- 16552 20627 80 *	SALÌSBURY 114.5
New Cas		BROOKE SALISBURY J
Woodbridge Woodbrid	ge 16058 20109 276	OCRANGE CO.
York York	16601 20199 486	PATUXENT
		Jen 178
	LEGEND	GORDONSWILE 77 18
47 A		115.6
₩ <b>0</b>	Civil-Public use airport	<i>h</i>
(R)	Restricted/Private-Nonpublic use airport,	RICHMOND
	having emergency use or landmark value	114.1
SANTA MONICA	Airport Name	
ATIS 119.15	Advisory Frequency (if available)	FLAT ROCK BICHMOND INTL
175-50	Elevation (feet) — Length (hundreds of feet)	BYRD FLD HOPEWELL
NAME		ATIS 119.15  CAPE CHARLES
FREQUENCY	VOR	NEWPORT NEWS A 1122
		PATRICKENNY
NAME	VORTAC (Distance Measuring Equipment Able)	PETERSBURG
FREQUENCY	VOLTAC (Distance Wedsuring Equipment Able)	Mingley AFE 171
		The state of the s
NAME @	VOR/DME	18 NORFOLK
FREQUENCY		NORFOLK CHAMBERS FIELD TO THE TOTAL NORFOLK INTL
NAME 2003		LAWRENCEVILLE A COMMANDE CONTRACTOR OF THE COMMAND COM
NAME FREQUENCY	Non Directional Beacon	112.9
		SUFFOLK NORFOLK 116.9 Naures Miles 0 10 20 30 40 50
_VOR/DME_	If VOR falls directly on an airport, only the airport	A PA TA A CONTROL OF THE PARTY
NAME FREQUENCY	symbol will be shown. The VOR facility type is shown at the top of the box.	Statute Miles 0 10 20 30 40 50
		84 1
AIRPORT NAME ABBREVIA CO	TIONS County	COFIELD COFIELD 112.5 North and east coordinates are canted at
FLD	Field	+ 7" (clockwise) to compensate for ortho-
INTL	International	TAR HIVER TO THE STATE OF THE S
MUNI	Municipal	formal conic projection.
	Private Airport (prior permission before landing)	26
(PVT)		

### Aurora 17152N 16393E alt. 705

Badger, WI (VOR)

RWY 9-27 5100 X 100 RWY 18-36 3205 X 75

freq. 1164

17732N 16459E

Battle Creek (VOR) 17402N 17415E freq. 109.4

Battle Creek/W.K. Kellogg Reg. (BTL) (F) alt. 954

17402N 17418E

RWY 9-27 RWY 5-23

RWY 13-31 4835 X 100 4025 X 150 10005 X 150

Benton Harbor, MI

alt. 643

RWY 13-31

17311N 17046E RWY 9-27 RWY 18-36

5110 X 100

2500 X 100 3660 X 100

Bloomington - Normal, IL (F) Capital (CAP) (VOR)



16593N 16242E frea. 108.2

Cappy, WI (MK) (NDB)

freq.

Cedar Rapids Muni (CID) (F) 17209N 15355E

Cedar Rapids, IA (VOR)

17208N 15330E

17605N 16570E 410

freq. 112.7

alt. 863 RWY 9-27 RWY 13-31

16337N 16020E



117.6 freq.





CHICAGO - 3

Boiler, IN (VOR) 16632N freq.

2 - CHICAGO

16593N 16246E

16852E 115.6

16024N 17012E

Bradford, IL (VOR) 16890N 16042E

Bloomington, IN (VOR)

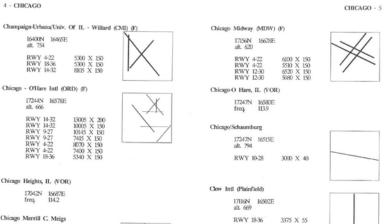
freq. 110.2

freq. 114.7

Burlington, IA (VOR) 16709N 15604E

111.4 freq.

Champaign, IL (VOR) 16397N 16464E 110 freq.





Connersville, IN (NDB) 16279N 17493E

freq.

RWY 18-36

3950 X 100



Danville, IL (VOR)

6 - CHICAGO

15757E 113.8

111

1647IN 16685E

5400 X 100 4005 X 100

alt. 692

RWY 3-21

RWY 16-34

Dayton, OH (VOR) 16427N 17731E frea. 114.5

Deana (NDB) 16535E 17240N 350 freq.

Decatur, IL (VOR)

16269N 16276E freq. 117.2

RWY 18-36 Dubuque, IA (VOR)

17421N 15684E freq.

Dwight (NDB) 16874N 16406E 344 freq.

Dupage, IL (VOR) 17202N

17920N 15997E

17213N 16466E alt. 758

RWY 10-28

RWY 15-33

RWY 4-22

17422N 15684E

alt. 1076

RWY 13-31

Dubuque Muni (F)

freq.

Du Page

115.1

freq.

16433E 1084

1505 X 100

4005 X 80

3405 X 100

6500 X 150

4900 X 150





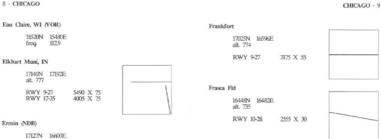




CHICAGO - 7









RWY 9-27 3605 X 75 RWY 18-36 5000 X 75 1679IN 15760E frea. 109.8

Fort Wayne Muni (Baer Field) (FWA) (F) Galesburg 16834N 17463E



10 - CHICAGO CHICAGO - 11 Gibson City, IL Horlick, WI (VOR) 16594N 16461E 17569N 16601E alt. 758 freq. 117.7 RWY 18-36 2595 X 30 Howell (Chicago/Blue Island)

Goshen, IN (VOR)

alt. 600 RWY 12-30 RWY 18-36

17100N 16627E

3060 X 40 2600 X 35



Grand Rapids, MI (VOR) 17330E 110.2

Indianapolis, IN (VOR) 16316N 17085E 116.3 freq.

Grand Rapids/Kent Co Intl (GRR) (F) Iowa City Muni, IA 17643N 1732IE 17101N 15405E



alt. 794 RWY 8-26 10000 X 150 RWY 18-36 3400 X 100 RWY 8-26 3920 X 75

alt. 663 RWY 17-35 RWY 12-30

4300 X 150 3905 X 150



RWY 6-24

3995 X 150

Jackson, MI (VOR)

frea.

Green Bay, WI (VOR)

16485E

17398N

17669E

18354N freq. 117

frea. Jacksonville, IL (VOR)

109.6

Grissom, IN (VOR) 16677N 17146E frea. 1165

17059N 17176E

freq. 113.7

1761IN

freq.

16284N 15816E 108.6

Janesville/Rock Co. 17509N 16213E alt. 807

> RWY 13-31 RWY 4-22 RWY 18-36

Joliet, IL (VOR) 17056N 16449E freq. 112.3

Joliet 17038N 16490E alt. 581

RWY 12-30

Kalamazoo (VOR)

17364N 17325E

freq. 109

2975 X 100

5400 X 150

6700 X 150

5000 X 75

Kedzi (NDB)

freq.

frea.

Kirksville, MO (VOR)

16472N freq.

> freq. 108.8

Knox, IN (VOR) 16967N 16981E

15051E 114.6

5985 X 100 3205 X 75

6500 X 150

4005 X 150

3355 X 150



16846N 16597E RWY 4-22

RWY 16-34

Kalamazoo Co (AZO) (F)

alt. 872

RWY 17-35

RWY 5-23

RWY 9-27

Kankakee, IL (IKK) (F)

alt. 626

17364N 17325E



17135N 16648E 248





Keeler, MI (VOR) 17326N -17139E 1166

freq. 109.8 La Crosse (VOR) 18056N 15526E freq.

108.4 18057N 15527E



Litchfield, MI (VOR)

Lewis Univ.

1708IN 16518E alt. 672

RWY 9-27

3000 X 55

17309N 17574E freq. 111.2

Lone Rock, WI (VOR)

17812N

15880E

freq.

Madison, WI (VOR)

La Crosse, WI (F)

Lansing, MI (VOR)

freq. 110.8

alt. 653

RWY 3-21

RWY 13-31

RWY 18-36

17592N 17584E

5300 X 150

5300 X 150

8535 X 150

freq.

16119E 108.6

## Manitowoc Co. WI alt. 649

18159N 16633E RWY 7-25 RWY 17-35

3345 X 100 5005 X 100

Madison/Dane Co Reg. - Truax Fld (F)

4700 X 100

5845 X 150

9040 X 150

17729N 16119E

alt. 863

RWY 5-23

RWY 14-32

RWY 18-36

### Marion, IN (VOR) 16617N 1730IE freq.

Marshalltown, IA

17319N 14974E alt. 974

RWY 12-30

RWY 18-36

108.6

5000 X 100 3800 X 55

frea. Midwest, OH (VOR) 16182N 17939E

Mcguire, OH (VOR)

1129 frea. Milwaukee/General Mitchell Fld

16246N 17796E

110

1765IN 16572E alt. 679

RWY 7-25 RWY 1-19 RWY 1-19 RWY 6-24 RWY 13-31



Milwaukee/Lawrence J. Timmerman 17720N 16530E

alt. 745 RWY 15-33 4110 X 75



Mattoon (MTO) (VOR) frea.

16158N 16465E 109.4

Moline, IL (VOR) 16965N freq.

RWY 4-22

15704E 114.4



6510 X 150 RWY 9-27

### Morris Muni 17004N 16413E

alt. 587 RWY 18-36

170HN 15736E

2900 X 60

6005 X 150

4915 X 150

## Muncie (VOR)

16512N 17412E freq. 114.4



alt. 938 RWY 14-32 6500 X 150 RWY 2-20 4200 X 100

## Muskegon, MI (VOR)

17760N 17156E freq. 115.2 New Lenox-Howell

17760N 17093E

6500 X 150

3205 X 100

5000 X 150

alt. 626

RWY 6-24

RWY 0-18

RWY 14-32

17025N 16571E alt. 745

RWY 13-31 RWY 5-23

Newton, IA (VOR)

17I94N 14919E

> 16557E 113

freq. 112.5

Nodine, MN (VOR) 18089N 15469E 117.9 freq.

Northbrook, IL (VOR) 17341N freq.



### Oshkosh, WI (VOR) 18097N 16365E freq. 111.8

### Oshkosh/Wittman Field (OSH) (F) 18093N 16364E

6170 X 100

3210 X 100

6700 X 150

3425 X 100

alt. 804 RWY 9-27

RWY 13-31 RWY 18-36 RWY 4-22

Ottumwa, IA (VOR) 16855N 15153E. 111.6

### freq. Pal-Wankee

17294N 16575E alt. 646 RWY 16-34

5140 X 100 RWY 6-24 2035 X 40 RWY 6-24 3655 X 55 RWY 12-30 4450 X 55 RWY 12-30 3230 X 40

## Patterson, OH (VOR)

16346N 17848E 115.2 freq.

alt. 777 RWY 18-36

Paxton, IL

Peoria, IL (VOR)

16576N 16507E

3405 X 55

8005 X 150

6005 X 150

16676N 15965E frea. 115.2





RWY 13-31 RWY 4-22

Peotone, IL (VOR)









17239N 16066E freq. 111.2



109.6

## freq. Pullman, MI (VOR)

Port City, IA (VOR)

16990N 15541E

1088

17465N 17141F freq. 112.1

# Racine/Horlick-Racine WI

17569N 16601E alt. 672

RWY 4-22 RWY 14-32

16306N

Richmond (RID) (VOR)

6555 X 100 4825 X 100

17605E 110.6

freq. Roberts, IL (VOR)

16637N 16500E freq. 1168

Robinson, IL (VOR)

15963N 16679E freq. 1084

Rockford, IL (VOR) 17342N 16164E

Rochester, MN (F)

freq. 110.8

18084N 15143E

alt. 1319 RWY 13-31

RWY 2-20

Rockford/Greater Rockford (RFD) (F) 17328N 16199E alt. 735

7530 X 150

5195 X 150

5000 X 150

4100 X 100

8200 X 150

RWY 6-24 RWY 12-30 RWY 0-18

Rosewood, OH (VOR) 16549N 17842E

freq. 117.5

Sanger (Monee) 16980N alt. 784

RWY 9-27

16646E

RWY 5-23 2385 X 35 2305 X 35





Sheboygan Co. Mem. WI

alt. 748

RWY 13-31

RWY 3-21

1800IN 16580E



3995 X 75 5000 X 100



South Bend (VOR)

17157N 17089E 115.4

freq. South Bend/Michiana Reg. (F)

freq.

17129N 17090E

alt. 790

RWY 9-27 7100 X 150 RWY 6-24

3080 X 100 RWY 18-36



freq. Timmerman, WI (VOR) 17720N 16529E

St. Louis (STL) (VOR) 15894N 15729E

freq.

Terre Haute, IN (VOR) 16168N 16809E

117.4

115.3

15920E

freq. 112.5 Troy, IL (VOR)

15840N freq. 116 Vandalia (VLA) (VOR)

> 15992N 16173E 114,3

freq.

Veals (NDB)

16369N 16496E freq. 407

4250 X 100 Springfield, OH (VOR)

17916E 16358N 113.2 freq.

## 26 - CHICAGO Waterloo Muni (ALO)

## 17506N 15151E.

alt. 872

RWY 6-24 RWY 18-36

5405 X 150 5405 X 150

RWY 12-30 8405 X 150

Waterloo, IA (VOR) 17506N 15152E

freq. 112.2

## Waukesha Co. WI

17689N 16468E

alt. 932 RWY 10-28 4200 X 100 RWY 18-36 3605 X 75

Waukon, IA (VOR)

17817N 15439E freq. 1166

White Cloud, MI (VOR) 17948N 17251E

freq. 117.6

Wolf Lake, IN (VOR)

16946N 17351E 110.4 freq.

All	RPORT DIRECT	ORY - CHICAGO AREA CHART	CHICAGO AREA CHART
CITY	AIRPORT	NORTH EAST ALTPUELILS ATIS VASI	SCENERY DISK REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.
Aurora Battle Creek Benton Harbor Bloomington Cedar Rapids Champaign Champaign Urbana Chicago Chicago Chicago	Aurora W.K. Kellogg Reg (BTL) Benton Harbor Bloomington-Normal Codar Rapids Muni (CID) Frasca Fid Univ. of IL-Willard (CMI) O'Hare Intl (ORD) Mertill C. Meigs Midway (MIDW)	17152 16393 705 17402 17418 954 17311 17046 643 16593 16246 876 17209 15355 683 16448 16482 732 17404 16578 666 17168 16671 590 17156 16629 820 111.5441 128.05 4R.221_4L.22R.	NODINE ILA CROSSE  ILA CROSSE  LA CROSSE  LA CROSSE  DELLIS  FOND DU LAC CO  SHEBOYGAN  SHEBOYGAN
Chicago Clow Danwille Du Page Dubuque Elkhart Fond du Lac Fort Wayne Frankfort Galenburg Gibson City Grand Rapids Howel Liowa City Jamesville Joliet Kallamazoo Kankakee Kokomo La Crosse Lansing Lewis Madilson Manthowoc Marshallfown Milwaukee Milwaukee Milwaukee Milwaukee Milwaukee Moline Morris Muncie Muskegon New Lonox Oehkosh Padon Padon Padon Padon Padon Racine Racine Racine Racine South Bend Wateroo Wateroop Sheboygan South Bend Wateroo Wateroop Sheboygan South Bend Wateroo Wateroop Wateroop South Bend Wateroo Wateroop Sheboygan South Bend Wateroo Wateroop Wat	Shaumburg Clow Intl (Plainfield) Danville (DNY) Du Page Dubuque Muni Elkhart Muni E	17247 18515 794 13R,31L,13L,31R 17116 18502 889 14471 18885 892 17213 16466 788 17422 18564 1078 17140 17192 777 18004 16382 810 16382 160 17025 16596 774 16792 15760 764 16594 16461 758 17643 17321 794 108,348R 118,85 8L,18	WATERLOO MINI  WATERLOO MINI  DUBUGUE MINI
		LEGEND	OTTURNA 111.6 PEORIA 115.2 ROBERTS
a o	•	Civil-Public use airport	BURLINGTON 111.4 GREATER PEORIA 115.6 KOKOMO MUNIO
(8)		Restricted/Private-Nonpublic use airport, having emergency use or landmark value	BLOOMINGTON-NORMAL GIBSON CITY PAXTON  PAXTON  DANVILLE  ROKOMO  109.8
SANTA MO ATIS 119.1 175-50		Rotating light in operation, sunset to sunrise Airport Name Advisory Frequency (if available) Elevation (feet) — Length (hundreds of feet)	KIRKSVILLE  111.0  DELAWARE CO JOHNSON FLD  MUNCIE  114.4  CHAMPAGN-URBANA UNIV. OF IL-WILLARD
NAME FREQUEN	° °	VOR	CHAMPAIGN 1100
NAME FREQUEN	CY Ø	VORTAC (Distance Measuring Equipment Able)	Scenario disk  This is the rest.  North and east coordinates are canted at 0° (clockwise) to compensate for orthogonal coordinate grid overlaid on Lambert conformal conic projection  San Francisco  Nr. 8, 10 + 12.
NAME FREQUEN	CY	VOR/DME	San Francisco Nr. 8,10 + 12.
NAME FREQUEN	CY	Non Directional Beacon	Hawaii  Japan  Statute Miles 0 10 20 30 40 50  Nautical Miles 0 10 20 30 40 50

### Appleton (APE) (VOR) 16507N 18293E freq. 116.7

CINCINNATI - 1

Ashland - Boyd County, KY (128) 15812N 18298E alt. 544

RWY 10-28 5605 X 100

Azalea Park (AZS), VA (NDB)

15726N 19747E freq. 336

Beckley (BKW) (VOR)

15529N 18874E

freq. 117.7

Beckley, Raleigh County Memorial (BKW)

Bellaire (AIR) (VOR) 16500N 18883E freq. 117.1

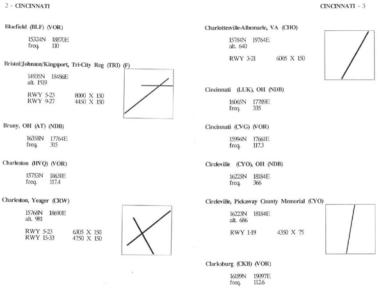
1553IN 18874E

alt. 2503

RWY 1-19

RWY 10-28 5000 X 100

6750 X 150



# 4 - CINCINNATI

Clarksburg / Benedum, WV (CKB) (F)

16211N 19110E

alt. 1204

RWY 3-21

RWY 13-31

Columbus, Bolton Field (214)

RWY 4-22.

alt. 905

16385N 18121E

# Cumberland, Cumberland Muni (CBE)

1640IN 1958IE alt. 777

Danville (DAN) (VOR) 15075N 19540E 113.1

freq.

Danville Regional (DAN) 15078N 19540E

RWY 5-23

RWY 10-28

CINCINNATI - 5

Columbus, Port Columbus Intl (CMH) (F) 16429N 18204E

10700 X 150 6005 X 150

5195 X 150

2500 X 75

5205 X 100

5000 X 150 4480 X 150

\_

alt. 571 RWY 2-20 RWY 6-24 RWY 13-31

4050 X 100

2000 X 150

4500 X 150

5055 X 150

3505 X 150

RWY 10-28 RWY 13-31 RWY 5-23

alt. 817

RWY 10-28

Connersville, IN (NDB)

16279N 17507E freq. 275

Cumberland (CBE), MD (NDB)

16417N 19586E 317 freq.

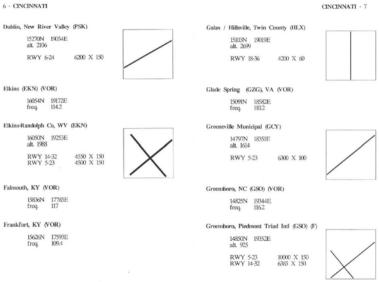
Dayton, OH (VOR) 16425N

freq.

freq.

17753E 1145

Delaney (DYQ), TN (NDB) 14777N 18326E 263



8 - CINCINNATI

### Henderson (HNN) (VOR) 15920N 18530E

Holston Mtn (HMV) (VOR)

14922N 18579E freq. 114.6

Hot Springs, Ingalls Fld. VA (HSP) (IBM FS3 Only) 15649N 19304E alt. 3792

RWY 6-24

15738N 18367E alt. 827 RWY 12-30 RWY 3-21

Huntt, WV (HT) (NDB) 15751N 18331E

> 16533N 19367E freq. 108.2

226 frea.

Indianhead (IHD) (VOR)

6510 X 150 3005 X 60

Huntington, Tri-State / Walker-Long Field (HTS)

5605 X 100

Lewisburg, Greenbriar Valley (LWB)

15589N 19118E alt. 2303 RWY 4-22

Kessel (ESL), WV (VOR)

Knoxville (TYS), TN (VOR)

14662N 1800IE

freq. 116.4

freq. 110.8

16227N 19526E

Lexington (HYK), KY (VOR)

15546N 17763E 112.6

7010 X 150

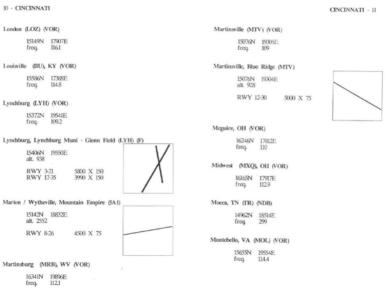
CINCINNATI - 9

Liberty (LIB), NC (VOR)

freq.

14724N 19485E freq. 113

Livingston (LVT) (VOR) 14937N 17555E freq. 108.4





Patterson (FFO), OH (VOR)





freq. 1168 Newcombe (ECB) (VOR) 15639N 18253E Rainelle (RNL), WV (VOR) frea. 110.4

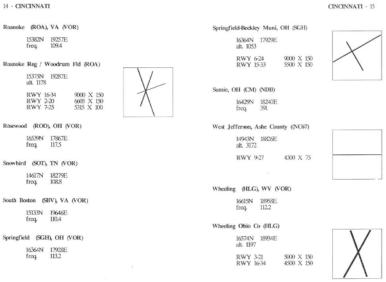
15625N 18973E freq. 116.6

Newcomerstown (CTW), OH (VOR) 16577N 18667E Richmond (RID), IN (VOR)

111.8 freq.

16307N 17604E frea. 110.6 Onida (MW) (NDB)

1624IN 1778SE freq.





Wise, Lonesome Pine

alt. 2680 RWY 6-24

Woodrum (ODR) (VOR) 15374N 19285E 114.9 freq.

15550N 19161E

freq.

1084

Wilmington, Airborne Airpark (ILN)

16167N 17915E

alt. 1073 RWY 4-22



9000 X 150





16226N 18185E

AIRPORT DIRECTORY - CINCINNATI AREA				_	CINCINNATI AREA CHART			
CITY	AIRPORT	NORTH	EAST	ALT	SCENERY DISK REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.			
Lewisburg Lynchburg Marion/Wytheville Martinsville Morgantown Mount Airy Parkersburg Roanoke Springfield West Jefferson Wheeling Willmington Winston Salem	Boyd Co., KY (I28) Raleigh County Mem. (BKW) Tri-City Reg (TRI) Yeager (CRW) Albemarle, VA (CHO) Pickaway County Mem. (CYO) Benedum, WV (CKB) Bolton Field (214) Port Columbus Intl (CMH) Cumberland Muni (CBE) Danville Regional (DAN) New River Valley (PSK) Randolph Co., WV (EKN) Twin County (HLX) Greenville Municiple (GCY) Piedmont Triad Intl (GSO) Ingalls Field, VA (HSP) Tri-State/Walker-Long Fid. (HTS) Greenville Municiple (GCY) Bidle Ridge (MTV) Muni-Hart Field, WV (MGW) Surry County (MWK) Wood County/Wilson Fid. (PKB) Reg-Woodrum Fid. (ROA) Beckley Muni, OH (SGH) Ashe County (NC67) Ohio County (HLG) Airborne Airpark (LIN) Smith Reynolds (INT) Lonesome Pine	15531 14935 15784 16223 16211 16385 16429 16401 15078 15270 15103 14797 15649 15738 15406 15142 15788 15406 15142 15788 15406 15142 15375 16370 14985 16370 14985 16370 14985 16370 14985 16370 14985 16370	18486 18690 19764 18184 19110 18121 18204 19580 19054 19054 19253 19019 18351 19253 19304 18367 19304 18367 19118 19550 18832 19304 19200 19124 18705 19200 19124 18705 19287 177929 18826 18934 177929 18826 18934 177929 18826 18934 177929 18826 18934 177929 18826 18934 177929 18826 18934 177929 18826 18934 177929 18826 18934 177929 18826 18934 177929 18826 18934 177929 18826 18934 177929 18826 18934 177929 18826 18934 177929 18826 18934 177929 18826 19935 199	544 2503 1519 981 640 686 1204 905 817 777 571 2106 1988 2699 1614 925 827 2303 938 2552 928 1246 1214 859 1246 1217 1178 1053 3172 1178 1073 1074 1	DAYTON 111.8 PATTERSON 1116.7 PATTERSON			
	LEGEND				WALKER-LONG FLO  RAINELLE  NEWCOMBE  AZALEA PARK			
27 4 O	Civil-Public use airport	t			INGALLS FIELD SINGALLS FIELD GREENBRIAR VALLEY MONTEBELLO MEMORIAL			
8	Restricted/Private-Non having emergency use				BECKLEY BECKLEY			
\$	Rotating light in opera	tion, suns	et to su	nrise	BLUEFIELD WOODRUM POANOKE LYNCHBURG MINIL			
SANTA MONICA ATIS 119.15 175-50	Airport Name Advisory Frequency (if Elevation (feet) — Len			feet)	BUJEFIELD 110.0 PULASKI ROANOKE RED WOODRUM FIELD 109.4 LYNCHBURG MUNI- GLENN FIELD 116.8 WOODRUM FIELD 109.2			
NAME FREQUENCY ®	VOR				MOUNTAIN EMPIRE  NEW RIVER VALLEY			
NAME FREQUENCY ♥	VORTAC (Distance Me	asuring Ed	quipmer	nt Able)	TWIN COUNTY  TWIN COUNTY  TWIN COUNTY  TWIN COUNTY			
NAME FREQUENCY	VOR/DME				BRISTOL  ASHE COUNTY  MOUNT AIRY  HOLSTONMIN  HOLSTONMIN  ASHE COUNTY  ASHE COUNTY  MOUNT AIRY  SUBDY COUNTY  113.1			
NAME FREQUENCY 0	Non Directional Beacon	n			GREENSULLE MUNICIPLE SMITH REYNOLDS SMITH REYNOLDS GREENSBORD			
VOR/DME_ NAME FREQUENCY	If VOR falls directly on a symbol will be shown. T shown at the top of the b	he VOR fac			DELANEY 263			
AIRPORT NAME ABBRE	VIATIONS				KNOXVILLE 116.4			
CO County FLD Field INTL International MUNI Municipal (PVT) Private Airport (prior permission before landing)			efore la	nding)	North and east coordinates are canted at + 4* (clockwise) to compensate for orthogonal coordinate grid overlaid on Lambert conformal conic projection  Nautical Miles 0 10 20 30 40 50			

ST. LOUIS - 1 Alton/St Louis St Louis Regional (ALN) 19005N 15875E alt 544 RWY 11-29 6495 X 100 RWY 17-35 5105 X 100 Anderson, Anderson Muni (AID) 16449N 17342F alt. 918 RWY 12-30 5400 X 100 RWY 18-36 3400 X 75 Appleton (APE) (VOR) 16507N 18203E freq. 116.7 Bardstown, Samules Fld (BRY)



15462N 17419E

alt. 663 RWY 2-20 4005 X 75 Bedford, Virgil I Grissom Muni (BFR) Bowling Green - Warren County (BWG)

15085N 17118E alt. 548

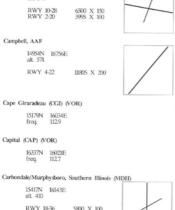
2 - ST. LOUIS

15894N 17084E

alt. 728

Bowling Green (BWG) (VOR) 15070N 17110E freq. 117.9 ST. LOUIS - 3

RWY 13-31 4500 X 100 RWY 3-21 6500 X 150 RWY 6-24 3105 X 75 RWY 12-30 3955 X 150 Bloomington, IL (VOR) Bowman, KY (VOR) 16593N 16242E 15641N 17355E freq. 108.2 frea. 112.2 Bloomington, IN (VOR) Bruny, OH (AT) (NDB) 16023N 17022E 16353N 17765E freq. 110.2 freq. 315 Burlington, IA (VOR) Bloomington, Monroe Co (BMG) 16022N 17021E 16709N 15604E alt. 846 freq. 111.4 RWY 17-35 5205 X 150 3815 X 100 Cahokia-St Louis St Louis Downtown - Parks (CPS) RWY 6-24 1577IN 15833E alt. 413 Boiler, IN (VOR) RWY 12-30 5500 X 100 16632N 16852E RWY 12-30 3800 X 75 RWY 4-22 2805 X 75 115.6 frea.



4095 X 100

RWY 6-24

Centralia, IL (VOR)

15691N 16177E
freq. 16179K
16397N 16464E
freq. 17694N
15994N 17661E
freq. 17661E

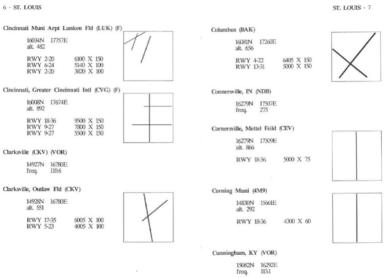
15738N 16195E alt. 535

5000 X 75

2575 X 150

RWY 18-36

RWY 9-27





6495 X 150

5300 X 150

5300 X 150

RWY 6-24

RWY 12-30

RWY 18-36



5000 X 75

RWY 5-23



10 - ST. LOUIS ST. LOUIS - 11 Fort Wayne, IN (VOR) Evansville Dress Regional (EVV)



frea.

RWY 9-27 Falmouth, KY (VOR)

15546N 16727E

8025 X 150

5080 X 150

3505 X 100

#### 15836N 17785E 117

Farmington Regional (FAM) 15410N 15744E

alt. 945 RWY 2-20 3975 X 60



Farmington, MO (VOR)





Foristell, MO (FTZ) (VOR)

15819N

freq.

freq. 110.8

15563E

Fort Knox, KY (VOR)

15491N 17258E 109.6

freq.

Galesburg, IL (VOR) 16791N

16834N

Frankfort, Capital City (FFT)

RWY 6-24

Frankfort, KY (VOR) 15632N 17610E

Ft Knox, Godman AAF 1549IN 17259E alt. 754

RWY 15-33

RWY 18-36

15632N 17612E alt. 804

109.4 freq.

freq. 117.8

17455E

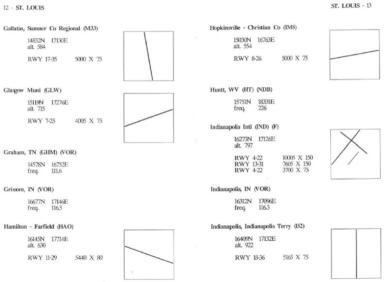
15760E

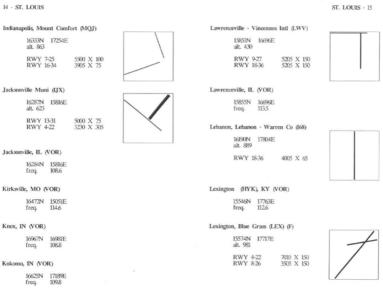
109.8

5000 X 150

5205 X 150

5005 X 100





RWY 3-21 4005 X 75 RWY 1-19 RWY 11-29

London (LOZ) (VOR) Madisonville Muni (2

Madisorville Muni (210)

124.8N 16776E

alt. 440

RWY 5-23 5000 X 75

freq. 1161 alt. 440

London - Corbin Arpt - Magee Fld (LOZ)

15173N 17919E alt. 1214



RWY 5-23 600

Louisville, Bowman Fld (LOU)

15640N 17355E

alt. 548

RWY 6-24

RWY 1-19

RWY 14-32

15149N 17907E

OU) 4310 X 80

6005 X 150

3380 X 100

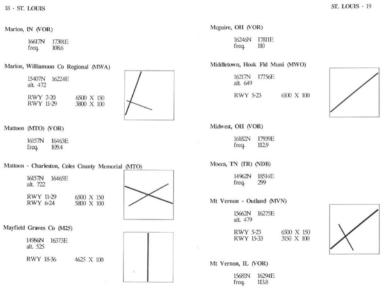
3535 X 80

RWY 18-36

Marion (MWA) (VOR)

15408N 16222E

freq. 110.4



Nashville, Nashville Metropolitan (BNA) (F) Muncie, IN (VOR) 14718N 17039E 16512N 17412E alt 600 frea. 114.4 RWY 13-31 8505 X 150

RWY 2-20 7705 X 150 Mystic, KY (VOR) RWY 2-20 108.2

4305 X 150 15485N 17148E freq. New Hope, KY (EWO) (VOR) 15386N 17373E

Nabb, IN (VOR) freq. 110.8 15792N 17343E

20 - ST. LOUIS

freq. 112.4 Onida (MW) (NDB)

16216N 17734E Nashville (BNA) (VOR) freq. 223

14716N 17038E 114.1 freq. Ottumwa, IA (VOR)

16855N 15153E Nashville, John C. Tune (JWN) 111.6 freq.

14740N 16973E alt. 492 Owensboro - Daviess Co (OWB)

RWY 1-19 5000 X 100 15410N 16852E alt. 407

RWY 17-35 6500 X 150 RWY 5-23 3700 X 100

Owensboro, KY (OWB) (VOR)

15411N 16852E

freq. 1086 ST. LOUIS - 21

22 - ST. LOUIS

Paducah, Barkley Regional (PAH) 1511IN 16307E alt. 410 RWY 4-22

RWY 14-32 4005 X 150

6500 X 150

Patterson, OH (FFO) (VOR) 16345N 17863E 115.2 freq.

Peoria, IL (VOR) 16676N 15965E. 115.2 freq.

Peotone, IL (VOR)

16937N 16618E 113.2

freq. Perryville (K02)

15455N 15936E alt. 371 RWY 1-19

Pocket City, IN (PXV) (VOR) 1549IN 16648E

> freq 113.3

5500 X 100

frea. Poplar Bluff, Earl Fields Mem (POF) 14990N 15774E

16742N 16316E

109.6

alt. 331

Pontiac, IL (VOR)

RWY 18-36 Richmond (RID) (VOR)

freq.

16307N 17605E 110.6

Richmond Muni (RID)

16309N 17604E alt. 1141 RWY 6-24 RWY 15-33

RWY 10-28

Roberts, IL (VOR) 16637N frea.

16500E 1168

4005 X 100

ST. LOUIS - 23

3615 X 150

5205 X 150

5015 X 150

Seymour, Freeman Muni (SER) Robinson Muni (RSV)

RWY 9-27 5100 X 75 RWY 17-35 3400 X 75 Robinson, IL (VOR)

alt. 584 RWY 4-22 RWY 13-31 RWY 18-36

> frea. 112

15937N 17259E

5500 X 150 1000 X 150 Shelbyville, IN (VOR) 16240N 17280E

5500 X 150

freq. Rosewood, OH (VOR) freq.

alt. 453

RWY 14-32

15963N 16680E alt. 462

15963N 16679E

16549N. 17842E

1084

117.5

116.6

24 - ST. LOUIS

Sikeston Memorial Muni (SIK)

15038N 16037E alt 315

RWY 14-32

RWY 1-19

5500 X 100

RWY 2-20

ST. LOUIS - 25

Samsville, IL (VOR) 15732N 16529E freq.

Scott AFB

15755N 15940E

7040 X 150

Smyrna (MOY) 14673N 17096E alt. 544

8035 X 150

5545 X 150

ST. LOUIS - 27 26 - ST. LOUIS

### Springfield, Capital (SPI) 16314N 16002E

alt. 597 RWY 4-22

8000 X 150 RWY 12-30 5300 X 150 RWY 18-36 5300 X 150



## Springfield, OH (VOR)

16358N 17916E. freq. 113.2



16364N 17929E alt. 1073

RWY 7-25 5000 X 75 RWY 4-22 9000 X 150



## St Louis Lambert - St Louis Intl (STL) (F)

15844N 15773E



## St Louis, Spirit of St Louis (SUS)

15729E

15811N 15674E alt. 462

RWY 8-26 7000 X 150 3800 X 75 RWY 8-26



### St. Louis (STL) (VOR)

15894N freq. 117.4 Sumie, OH (CM) (NDB)

### 16432N 18243E

391 freq.

## Terre Haute, Hulman Regional (HUF)

16152N 16791E alt. 584

RWY 5-23

RWY 13-31 5300 X 150

9020 X 150



## Terre Haute, IN (VOR)

16168N 16809E

freq. 115.3



15840N 15920E 116 freq.

#### Union City, Everett · Stewart (UCY) 14817N 16237E alt. 341

RWY 1-19

5000 X 100



#### Vandalia (VLA) (VOR)

15992N 16173E 114.3 freq.

## Walnut Ridge (ARG) (VOR)

#### 14706N 15554E freq. 114.5

### Walnut Ridge Regional (ARG)

147IIN 15563E alt. 276 RWY 4-22 5000 X 150 RWY 13-31 5000 X 150



## RWY 17-35 Waverly, Humphreys Co (0M5)

14708N 16671E alt. 745

RWY 3-21 4005 X 75

5000 X 150



110.4 freq. Wright-Patterson AFB

Wolf Lake, IN (VOR)

16348N 17867E alt. 823

16946N 17351E

RWY 5-23 RWY 5-23

4750 X 150

12605 X 305



AIRPORT DIRECTORY -	- ST LOUIS AREA CHART	ST LOUIS AREA CHART			
	NORTH EAST ALT PUBLILS ATIS VASI	SCENERY DISK REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.			
Alton/St Louis Anderson Muni (ALD) 11. Anderson Muni (ALD) 11. Bedford Samules Pid (BPY) 11. Bedford Virgil I Grissom Muni (ALD) 11. Bedford Virgil I Grissom Muni (BFR) 11. Bediaville Scott AFB 11. Blooming Greene Scott AFB 11. Blooming Greene Carbotia-St Louis St Louis Downtown - Parks (CPS) 11. Campbell Carbotia-St Louis Downtown - Parks (CPS) 11. Campbell AFF 11. Campbell Carbotia-St Louis Downtown - Parks (CPS) 11. Campbell AFF 11. Campbell	15905 15875 544 16449 17342 918 15462 17419 663 15894 17084 728 15994 17084 728 15085 1718 548 15071 15833 413 15777 15833 413 15777 15833 413 15778 16195 571 15417 16143 410 15738 16195 535 16034 17757 482 * 110.9/20L 2R.20L_20R.6.24 16008 17674 892 * 111.9/9R 135.3 27R.27L,18 16078 17509 866	JACKSONVILE MUNI  DANVILE  INDIANAPOLIS TERRY  JACKSONVILE MUNI  DECATUR  D			
Charleston   Mayfield Graves Co. (M25)   14	14986   18373   525     6217   17756   649     5662   16275   479     5662   16275   479     5662   16275   479     5662   16275   479     5662   16275   470     5740   16373   492     5710   16382   407     5711   16307   410     5711   16307   410     5711   16307   410     5711   16307   410     5711   16307   410     5711   16307   410     5711   16307   410     5711   16307   410     5711   16307   410     5711   16307   410     5711   16307   410     5711   16307   410     5711   16307   410     5711   16307   410     5711   16307   410     5711   16307   410     5711   16307   410     5711   16307	PERRYVILLE  MARION, II.  110.4  PERMINGTON REG  MARION REG  MARION REG  MARION REG  MARION REG  MARION REG  MILLIAMSON CO REG  MARION II.  MARION II.  MARION II.  MARION II.  MARION II.  MARION REG  MILLIAMSON CO REG  MILLIAMSON CO REG  MILLIAMSON CO REG  MILLIAMSON CO REG  MARION II.  MARION II.  MARION II.  MARION II.  MARION II.  MARION II.  MARION REG  MARION II.  MARION II.  MARION REG  MARION REG  MARION II.  MARION II.  MARION REG  MA			
LEG	GEND	CORNING MUNI MALDEN MUNI (1884)			
€ Civil-P	Public use airport	EVERETT-STEWART SUMMER CO REG			
	icted/Private-Nonpublic use airport, og emergency use or landmark value	WALNUT RIDGE REG  JOHN C. TUNE  MASHVILLE METROPOLITAN  North and east coordinates are canted at			
★ Rotating light in operation, sunset to sunrise		WALNUT RIDGE  114.5  WALNUT RIDGE  DYERSBURG MUNI  WALNUT RIDGE  THUMPHREYS CO  MASHVILLE  114.1  SAMPIN  SAMP			
ATIS 119.15 Adviso	ort Name sory Frequency (if available) ition (feet) — Length (hundreds of feet)	114.5 SMYRNA formal conic projection  DYERSBURD 116.8 Statute Miles 0 10 20 30 40 50			
NAME FREQUENCY • VOR		Nautical Miles 0 10 20 30 40 50			

DETROIT - 1

	16968N freq.	18742E 114,4			
Akron,	OH	Akron			
	16931N alt. 1069	18661E			

Akron (VOR)

Akron Fulton Intl N 18661E

16890N 18672E nlt. 1227

RWY 7-25 6356 X 150 RWY 1-19 2335 X 98

Akron, OH Akron-Canton Regional

RWY 1-19 6395 X 150



# RWY 14-32 5602 X 150 RWY 5-23 5602 X 150 Alma, MI Gratiot alt. 754

17845N 17560E

RWY 9-27 4998 X 72

Alpena (VOR)

RWY 18-36 3201 X 72

18642N 17887E freq. 108.8





3503 X 72

RWY 3-21

2 - DETROIT



Bradford (VOR)



Brantford, ONT Brantford Carlisle, PA Carlisle 17870N 18931E 16723N 20104E alt. 813 alt. 515 RWY 10-28 4008 X 39 RWY 5-23 4998 X 98 RWY 11-29 RWY 11-29 2597 X 98 2597 X 98 RWY 17-35 RWY 17-35 2597 X 98 2459 X 98 Centralia, ONT Huron Airpark RWY 5-23 17897N 18558E alt. 823 RWY 10-28 5011 X 150 Bryan, OH William Co. 4401 X 150 3201 X 150 RWY 16-34 17046N 17660E RWY 4-22 alt. 731 RWY 7-25 5005 X 72 Clarion (VOR)



8101 X 150 5379 X 150

alt. 725 RWY 5-23

RWY 14-32

4 - DETROIT





alt. 584

17133N 18571E

RWY 6-24

RWY 6-24

Cleveland, OH

6199 X 150

5202 X 98

Burke Lakefront



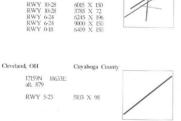








Cleveland, OH Cleveland Hopkins Intl (F) Coshocton, OH Richard Downing 17078N 18518E 16609N 18558E alt. 790 alt. 977



6002 X 150

4998 X 150

4480 X 150

10699 X 150

Columbus Intl

16441N 18229E. alt. 813

RWY 10-28

RWY 10-28

RWY 13-31

RWY 5-23

6 - DETROIT

Columbus, OH



RWY 3-21

RWY 4-22

5090 X 98 4027 X 98

4113 X 72



DETROIT - 7

Detroit, MI Detroit Metro Wayne Co.





Detroit, MI Willow Run Elmira (VOR) 17548N 20039E 17398N 17954E 113.7 freq.

RWY 5-23 7524 X 150 Elmira, NY RWY 5-23 RWY 9-27 6658 X 157 7294 X 157 RWY 9-27 6514 X 157 alt. 954 RWY 14-32 6914 X 157 RWY 6-24

8 - DETROIT

alt. 715

Corning Regional 17583N 2008IE 6999 X 150 5195 X 150

DETROIT - 9

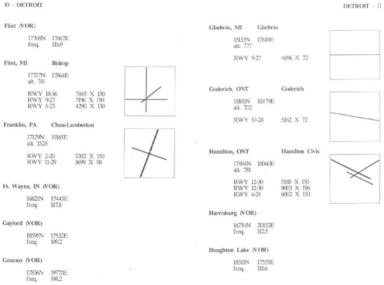
RWY 10-28 Dryer (VOR) Erie (VOR) 17049N 18423E 17387N 18999E

freq. 113.6 110.8 freq. Du Bois PA Du Bois-Jefferson County Erie, PA Erie Intl

17079N 19487E 17422N 19030E alt. 1817

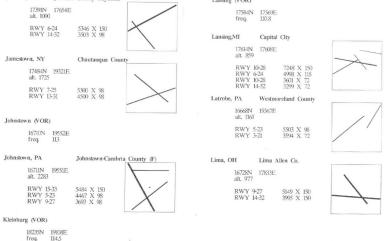
RWY 7-	-25 5503 X 98	RWY 6-24 RWY 10-28 RWY 2-20	6500 X 150 3601 X 150 3529 X 150	1
Dunkirk, NY 17630N	Dunkirk Muni 1930/F	Findlay, OH Findlay		

			-1
Dunkirk, NY	Dunkirk Muni	Findlay, OH Findlay	
17630N alt. 692	19300E	16863N 17942E alt. 813	
RWY 6 RWY 1		RWY 7-25 6002 X RWY 18-36 6002 X	

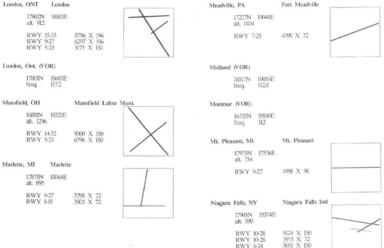


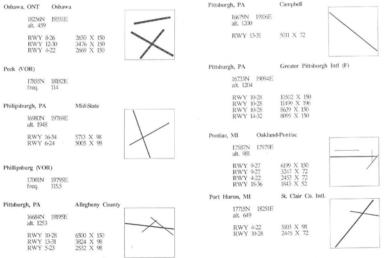
Jackson, MI Jackson County Reynolds Lansing (VOR)

12 - DETROIT

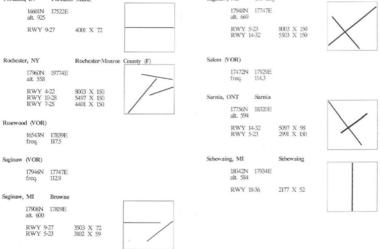


14 - DETROIT

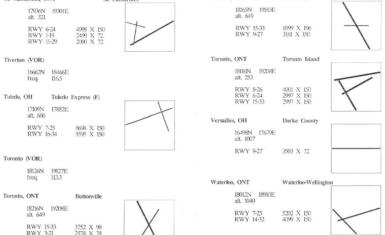




18 - DETROIT Portland, IN Portland Muni. Saginaw, MI Tri City



20 - DETROIT Toronto, ONT Downsview St. Catharines, ONT St. Catharines



17514N 19728E alt. 2122 RWY 10-28 4900 X 72

Windsor (VOR) 17419N 18176E freq. 113.8

Weston, WV Wheeling Ohio County 16586N 18963E alt. 1197 RWY 3-21 4998 X 150 4493 X 150 RWY 16-34 RWY 9-27 3220 X 98



Youngstown Executive 16963N 18868E alt. 997

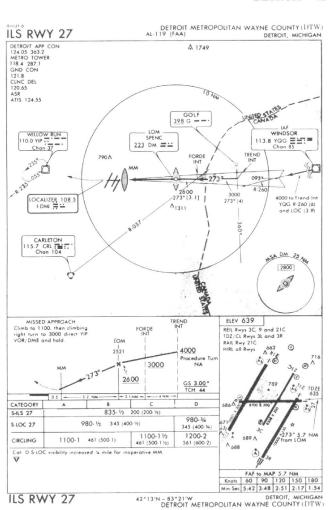
Wiarton (VOR) 4172 X 59 RWY 11-29 18647E

# 24 - DETROIT

Youngstown, OH Youngstown Muni.

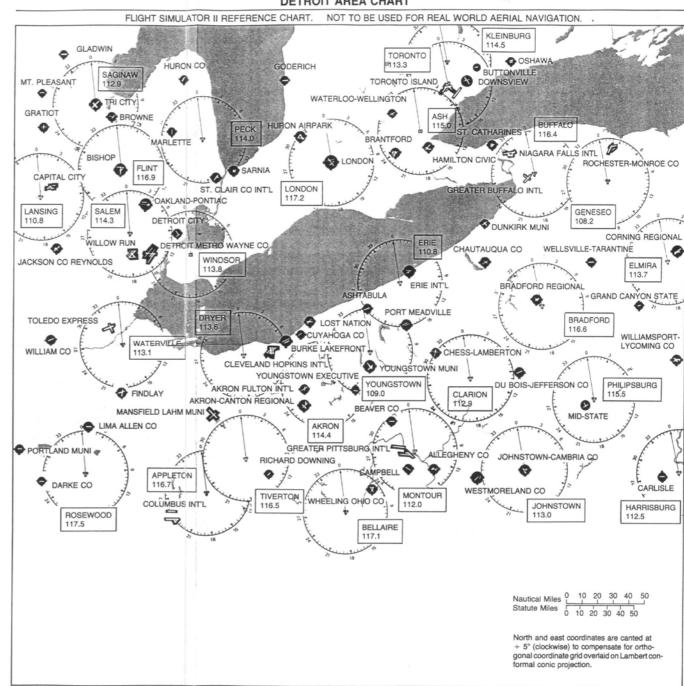
17050N 18908E alt. 1197 RWY 14-32 7491 X 150 RWY 5-23 4985 X 150 RWY 1-19 3719 X 98





AIRP	ORT DIRECTORY	- DET	ROIT				
CITY	AIRPORT	NORTH	EAST	ALT.	F	ILS (Bas/Fred)	
Akron, OH	Akron Fulton Intl	16931	18661	1069	r uei)	(Rwy/Freq)	
Akron, OH	Akron-Canton Regional	16880	18672	1227			
Alma, MI	Gratiot	17845	17560	754			
Ashtabula, PA	Ashtabula	17274	18879	922			
Bad Axe, MI	Huron Co	18079	18082	764			
Beaver Falls, PA	Beaver Co	16850	19021	1253			
Bradford, PA Brantford, Ont.	Bradford Regional	17357	19538				
Bryan, OH	Brantford William Co	17870 17046	18931	813			
Buffalo, NY	Greater Buffalo Int'l	17841	17660 19450	731 725			
Carlisle, PA	Carlisle	16723	20104	515			
Centralia, Ont.	Huron Airpark	17897	18558	823			
Cleveland, OH	Burke Lakefront	17133	18571	584			
Cleveland, OH	Cleveland Hopkins Intl	17078	18518	790	٠		
Cleveland, OH	Cuyahoga Co	17159	18633	879			
Columbus, CH	Columbus Intl	16441	18229	813			
Coshocton, OH	Richard Downing	16609	18558	977			
Detroit, MI	Detroit City	17485	18115	626			
Detroit, MI ATIS 124.55	Detroit Metro Wayne Co	17396	18013	640		27/108.5	
Detroit, MI	Willow Run	17200	17054	715			
Du Bois, PA	Du Bois-Jefferson Co	17398 17079	17954 19487	715 1817			
Dunkirk, NY	Dunkirk Muni	17630	19300	692			
Elmira, NY	Corning Regional	17583	20081	954			
Erie, PA	Erie Intl	17422	19030	731			
Findlay, OH	Findlay	16863	17942	813			
Flint, MI	Bishop	17707	17864	781			
Franklin, PA	Chess-Lamberton	17129	19165	1528			
Gladwin, MI	Gladwin	18133	17610	777			
Goderich, Ont.	Goderich	18101	18479	702			
Hamilton, Ont.	Hamilton Civic	17894	19060	781			
Jackson, MI	Jackson Co. Reynolds	17391	17654				
Jamestown, NY	Chautauqua Co	17484	19321	1725			
Johnstown, PA Lansing, MI	Johnstown-Cambria Co Capital City	16711		2283	•		
Latrobe, PA	Westmoreland Co	17614	17608 19367	859			
Lima, OH	Lima Allen Co	16668		977			
London, Ont.	London	16728 17802	17833 18683	912			
Mansfield, OH	Mansfield Lahm Muni	16811		1296			
Marlette, MI	Marlette	17875	18064	895			
Meadville, PA	Port Meadville	17227		1404			
Mt. Pleasant, MI	Mt. Pleasant	17975	17536	754			
Niagara Falls, NY	Niagara Falls Int'l	17905	19374	590			
Oshawa, Ont.	Oshawa	18256	19351	459			
Philipsburgh, PA	Mid-State	16980	19769	1948			
Pittsburgh, PA	Allegheny Co	16684		1253			
Pittsburgh, PA	Campbell	16679		1200			
Pittsburgh, PA	Greater Pittsburg Intl	16733	19094	1204		28/108.9	
ATIS 127.25	Oakland Danting	17507	17070	004			
Port Huron MI	Oakland-Pontiac	17587	17979	981			
Port Huron, MI Portland, IN	St. Clair Co. Intl Portland Muni	17715	18251	649			
Rochester, NY	Rochester-Monroe Co	16601 17960	17522 19774	925 558	*		
Saginaw, MI	Tri City	17948	17747	669			
Samia, Ont.	Sarnia	17756	18320	594			
Sebewaing, MI	Sebewaing	18042	17934	584			
St. Catharines, Ont.		17936	19301	321			
Toledo, OH	Toledo Express	17109	17882	686	*		
Toronto, Ont.	Buttonville	18216	19208	253			
Toronto, Ont.	Downsview	18165	19183	649			
Toronto, Ont.	Toronto Island		19208	253			
Versailles, OH	Darke Co	16498		1007			
Wallebase BA	Waterloo-Wellington	18012		1040			
Wellsboro, PA	Grand Canyon State	17377		1899			
Wellsville, NY Weston, WV	Wellsville-Tarantine	17514	19728				
Williamsport, PA	Wheeling Ohio Co	16586	18963				
Willoughby, OH	Wmsport-Lycoming Co Lost Nation	17187	20124 18657	528 626			
Youngstown, OH	Youngstown Executive	17214 16963	18868	997			
Youngstown, OH	Youngstown Muni	17050	18908				
,,,	g						

**DETROIT AREA CHART KLEINBURG** TORONTO



18639N 17885E alt. 689

18642N 17887E freq. 108.8

RWY 1-19 9000 X 150

RWY 7-25 5031 X 150 RWY 13-31 5031 X 150

Phelps Collins

LAKE HURON - 1

Ash, Ont. (VOR) 17962N 19024E freq. 115 Au Sable (VOR)

Coehill (VOR)

freq. 115.1 Earlton, Ont.

alt. 797

Alpena (VOR)

Alpena, MI

1837IN 17948F

freq. 116.1 18617N 19636E

19858N 18902E

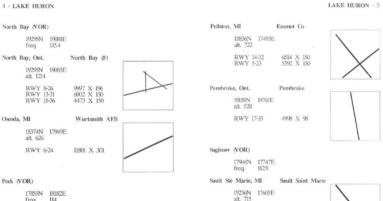
Earlton RWY 7-25 6002 X 150

2 - LAKE HURON	LAKE HURON - 3
Flint (VOR)	Houghton Lake, MI Roscommon Co
17708N 17867E freq. 116.9	1831IN 17557E alt. 1151
Gaylord (VOR)	RWY 9-27 4001 X 72
1859SN 175.32E freq. 109.2	
Gaylord, MI Otsego Co	Killaloe (VOR)
1859SN 17533E alt. 1328	19061N 19666E freq. 1156
RWY 9-27 4998 X 98 RWY 0-18 2997 X 72	Kleinburg (VOR)  18238N 19108E  frog. 114.5
Gladwin, MI Gladwin	London, Ont. (VOR)
18133N 17610E alt. 777	1780IN 18683E freq. 117.2
RWY 9-27 4696 X 72	Manitoulin, Ont. Gore Bay
	19008N 18163E alt. 636
Houghton Lake (VOR)	RWY 11-29 4900 X 98
183UN 17555E freq. 111.6	

Midland (VOR)

18517N freq.

19056E 112.8



RWY 14-32

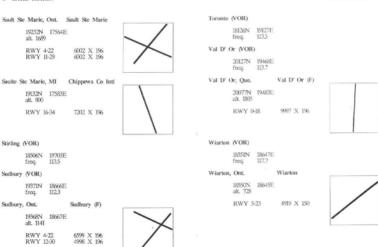
4001 X 98



18863N 17534E

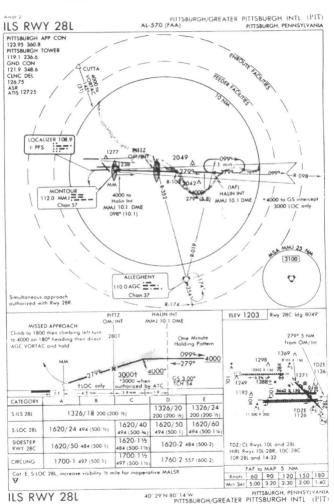
freq. 111.8

# 6 - LAKE HURON



LAKE HURON - 7

# 8 - LAKE HURON



AIDDODT DIDE	CTORY LAKE HIDON AREA	AND HUDON ADDA ONADT
CITY AIRPORT	CTORY - LAKE HURON AREA	LAKE HURON AREA CHART
AIRPORT	NORTH EAST ALT. F ILS	FLIGHT SIMULATOR II REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.
Alpena, MI Earlton, Ont. Gaylord, MI Houghton Lake, MI North Bay, Ont. Oscoda, MI Pellston, MI Pembroke, Ont. Sault Ste Marie, Ont.Sault Ste Sault Ste Marie, MI Sudbury, Ont. Val D' Or, Que. Wiarton, Ont.	19858 18902 797 18595 17533 1328 1900 18595 17533 1328 1900 18311 17557 1151 19008 18163 636 19295 19085 1214 194 626 194 1959 19761 528 1959 19761 528 1959 19761 528 19481 19236 17605 715 19481 19236 17564 1689 1958 18667 1141	Nautical Miles 0 10 20 30 40 50 Statute Miles 0 10 20 30 40 50 VAL D' OR 113.7
		EARLTON VAL D' OR
	North and east coordinates are canted at + 5° (clockwise) to compensate for orthogonal coordinate grid overlaid on Lambert conformal conic projection.	
	LEGEND	SUDBURYS VI2.3
€ 4 0	Civil-Public use airport	SAULT STE MARIE  NORTH BAY 115.4
8	Restricted/Private-Nonpublic use airport, having emergency use or landmark value	SOUBORY SAINT MARIE
☆	Rotating light in operation, sunset to sunrise	NORTH BAY
SANTA MONICA ATIS 119.15 175-50	Airport Name Advisory Frequency (if available) Elevation (feet) — Length (hundreds of feet)	CHIPPEWA CO INTL
NAME FREQUENCY °	VOR	PELLSTON GORE BAY
NAME FREQUENCY ♥	VORTAC (Distance Measuring Equipment Able)	EMMET CO
NAME FREQUENCY	VOR/DME	GAYLORD 109.2 COEHILL
NAME FREQUENCY 0	Non Directional Beacon	OTSEGO CO PHELPS COLLINS / 115.1
VOR/DME_ NAME FREQUENCY	If VOR falls directly on an airport, only the airport symbol will be shown. The VOR facility type is shown at the top of the box.	HOUGHTON LAKE AU SABLE
AIRPORT NAME ABBREVIA	TIONS	111.6 MIDLAND 112.8
CO FLD	County Field	WURTSMITH AFB
INTL	International	ROSCOMMON 75 113.5
MUNI (PVT)	Municipal Private Airport (prior permission before landing)	
		Contraction of the Contraction o

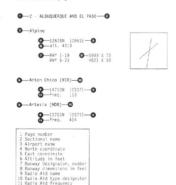
SubLOGIC Scenery Disks are grouped by aeronautical sectional. Each SD covers a geographical region of the United States, generally comprised of three sectionals:



In addition to twelve regional Scenery Disks, a number of STAR Scenery Disks are also available. A STAR Scenery Disk covers a small area with a relatively dense amount of scenery. These disks are mainly intended for visual flight (sight-seeing). They locate buildings and landmarks, as well as detailed renotions of the major argorist in the area.

#### Reading a Sectional Directory

Below is a sample listing from a sectional directory with a description of the information provided. All available airports and radio-naiv aids for a given sectional are listed alphabetically Hadio transmitters that border a sectional are also available on neighboring sectionals, so you can cross sectional boundaries when instrument flying.



Notice that the vertical sides of the airport map align with magnetic north. Magnetic north is the direction you are pointing when your magnetic compass reads 0. Each sectional map is VOR needles point toward magnetic north. The sides of the map align with true north. This is consistent with NOAA sectionals. U.S. Scenery Disk areas are grouped as follows:

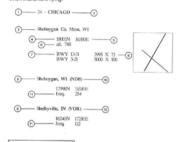


Scenery Disks for other areas of the world are also available. Japan Scenery Disk covers the area from Tokyo to Osaka in great detail. "Western European Tour" Scenery Disk provides detailed scenery covering southern Great Britain, northern France, and southern West Germany, with a side trip to Red Square in Moscowl San Francisco Scenery Disk covers the Bay area in great detail, and is designed primarily for local area sightseeing.

Scenery Disks are available in 5-1/4" and/or 3-1/2" disk format for most computer systems. Contact SubLOGIC for information on which scenery areas and disk formats are currently available for your system.

#### Reading a Sectional Directory

Below is a sample listing from a sectional directory with a description of the information provided. All available airports and radio-nav aids for a given sectional are listed alphabetically. Radio transmitters that border a sectional are also available on neighboring sectionals, so you can cross sectional boundaries when instrument flying.



- Sectional name North coordinate East coordinate Altitude in feet Burney Designator guestier
- A Burway dimensions in feet 9 Radio Aid name 10 Radio Aid type designator 11 Radio Aid frequency

Page number

Airport name

Notice that the vertical sides of the airport map align with magnetic north. Magnetic north is the direction you are pointing when your magnetic compass reads 0. Each sectional map's VOR needles point toward magnetic north. The sides of the map align with true north. This is consistent with NOAA sectionals.

### Reading a STAR SD Sectional Directory

This Star SD sectional directory lists all available airports in alphabetical order, followed by all radio-nav aids. Each airport includes a detailed diagram of the airport as if appears on the disk. Airport and radio-nav aid listings are organized as follows:

```
●—2 - ALBUQUERQUE AND EL PASO—●

(Airport Diagram)
```

O-Alpine

9-13703N 10575E-0 freq. 414

2 Sectional name
3 Airport name
4 Morth coordinate
5 East coordinate
5 East coordinate
5 Allitude in feet
7 Runway Designator, number
8 Runway dimensions in feet
9 Eadio Aid name
10 Radio Aid type designator
11 Radio Aid frequency

Page number

The vartical sides of each airport diagram align with magnetic north. Magnetic north is the direction you are pointing when your magnetic compass reads 0. Each sectional mag's VOR needles point toward magnetic north. The sides of the map align with true north. This is consistent with NOAA sectionals.

### Using a Scenery Disk with Flight Simulator II

Load Fight Simulator II in the usual way. When the program has finished loading, enter the simulator's program editor as described in your operating manual and set the NORTH and EAST coordinates of the sirport you were present and enterly of the region you'd like us explore (set ATTIDE to 0). Exist the editor, remove the FSIII disk and insent the appropriate Scenery Disk. Next, press CTFIL. E and was for a menu to appear. This menu page lists the names of the sectionals included on the Scenery Disk. Press any key to exit, and you should find yourself at the appropriate via elected. If no scenery is valuite, op into radar mode and zoom out to determine your approximate location. You may be able to zoom all the way out and view the entire continental United States challance, complicit with rivers, highways, coastimes, and the Chee Ladents and the control of the control of the control of the control of the processing of the control of the control of the processing of the control of the processing of the control of control

When you find yourself at the airport you've selected, it may be a good sidea to save your position to a User Mode (see User Mode Library in the FSII Pilot's Operating Handbook). This way, if you crash you will be returned to the selected airport. Otherwise you will be returned to a preset location (above Lake Michigan) in the defaul USA database.

#### **Crossing a Sectional Boundary**

When you fig over a socional boundary, one of two things will occur. If the neighboring sectional visit and one of sectional visit load and you will have to switch to the appropriate new map and directory provided. If the registroring sectional is not available on your disk, a common default USA database will load. This default database allows you to zoom under the common default use the major exercise to the control of the control of the reader model to leave the major exercise the section of the United States.

If you have another Scenery Disk containing the appropriate sectional, you can switch disks and press CTRL. E to log-in the new disk. After a brief load, the names of the new sectionals available on this disk will be displayed. Press any key to exit and return to Flight Simulator II.

IMPORTANT - If you want to change Scenery Disks or go back to the scenery on the FS2 disk, you must log-in the new disk by pressing CTRLE. If you do not log-in the new disk, you will not get the new scenery and you will risk causing a disk load error.

# Using a Scenery Disk with Microsoft Flight Simulator (IBM PC Versions)

Load Flight Simulator in the usual way. When you want to switch to a Scenery Disk, remove the Flight Simulator disk and insert the appropriate Scenery Disk. Press CTRL E. This will log-in the disk. A message will appear on the screen identifying the names of the sectional areas contained on the disk.

The first Scenery Disk log in automatically checks to see if you have the most recent version of Fight Simulator. I you don't, the program updates Flight Simulator in memory, When this happens, your flight coordinates are set back to the Chicago area. This will only happen on the first Scenery Dask opin of the session. After the first log in, your flight coordinates and conditions will carry over as you charges Scenery Disks while filing.

After logging in the first Scenery Disk, you can fiy or slew through all of the scenery on the disk. You can freley exchange Scenery Disks as you fly in scenery on the disk. You can freley exchange Scenery Disks as you fly and areas. Perss CTFL Eto log-in the new area when you switch disks. If you fall log-in a new Scenery Disk after interning 1, it will be automatically logged in when the disk is accessed. The log-in message will appear after every manual or automatic loss.

#### Using the Microsoft Flight Simulator Disk as a Scenery Disk

The Flight Simulator disk contains all of the usual scenery for the Chicago, Seattle, Los Angeles, and New York areas. You can insert this disk and log it in as you would any other Scenery Disk to fly in these areas. This applies to Jet as well as Flight Simulator.

#### Special Note for IBM PC Flight Simulator Version 2.0

Very few copies of Version 2.0 exist. You most filely have Version 2.1, 2.10, 2.10a, 2.12b, or a later version of Microsoft Flight Simulator. Look on the clist bable hare the serial number area, or look on the first menu page when loading Flight Simulator. If you have Version 2.0, insert the Scenery Disk and press ESC inserted of CTRLE. For the first log in of the session. After this first log-press CTRLE as usual to log-in new Scenery Disks. Also, never re-insert the Version 2.0 disk to use the Chicago, Seattle, to Sangeles, or New York scenery; you must re-boot Version 2.0 to return to these areas. Version 2.0 also cannot be used as a Scenery Disk for Jet.

5

### Tandy 1000/1200/2000 Flight Simulator

Scenery Disks are compatible with the Tandy 1000/1200/2000 version of Flight Simulator. With his version, always make sure to log-in a new Scene Disk by pressing CTRL E once the disk has been inserted. No auto-load is available on this version, and failure to log-in a new disk can cause unpredictable results when the disk is accessed after an unipooned disk chance.

#### Special Note for Compaq 286 Users

The 1.2Mbyte floppy drives in the Compaq Deskpro 286 computer cause diskread errors when using Scenery Disks with SubLOGIC Jet or Microsoft Flight Simulator. Here is the reason why, and how to get around it:

PROBLEM: Whenever you remove a disk from the floppy drive by turning the release lever, the diskete springs out of the driver. This spring action triping to release lever, the diskete springs out of the driver. This spring action triping switch in the driver that informs the disk read write software that you have just sharped the disk. The software assumes that you are about to insent of disk, and switches to 1.28Myte read mode from whatever mode in happens to be in .j.st. Flight Simulator, Scenery Disks fand many other namufucher programs) are on 360K disks, and a read error results when the Compaq 288 tries to read them as 1.28Myte disks.

You can verify this for yourself using the Microsoft Flight Simulator. Boot the disk, then enter and exit the editor several times (ESC key) just to see that everything is functioning properly. Then pop the disk out of the drive, re-insert it, and try to get back into the program editor. You will get a disk read error.

SOLUTION. You can avoid this problem by tricking the disk drive into thinking that you haven to hanged disks. On this by holding the disk in place with your finger while releasing the disk-release lever. DON'T LET THE DISK POP OUT OF THE DRIVE. Then namually remove the disk and insertal Sciency Disk for Flight Simulator as sciency for Jeff. The computer will never know that you changed the disk and everything about sovice from the control of the drive will go itself out of the drive, the switch will be activated and the drive will go in 1.2Mfette mode thus creation everything benefit.

#### let Users

Scenery Disks are compatible with SubLOGIC Jet. Follow the instructions in your Jet manual for loading a Scenery Disk. Let has no automatic logic at ture, so always make sure you return to the Jet startup menu page before inserting a new Scenery disk. Changing Scenery Disks in the modied or displict can cause unpredictable results when the disk is accessed, after a disk change.

#### Conclusion

As of this writing there are no fuel or repair facilities available on regular Scenery Disks (although they do occur on STAR Scenery Disks). To refuel, just land at an airport and enter the program editor. Your tanks will be filled and repairs will be made when you exit the editor.

We intend to periodically update and improve our Scenery Disks to include more airports, racial ois, and scenery details as recommended by users. If you knowed of an airport for any other detail) that should be included on future versions of these Scenery Oxiss, please drops us line and included the required information ON A SEPARIATE SHEET OF PAPER (so we can store it in our files), Here's what we need to know.

Airports: NAME, CITY, & STATE

LATITUDE, LONGITUDE, & ALTITUDE HEADING, LENGTH, & WIDTH of each runway

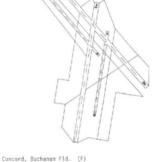
Buildings, objects: NAME, CITY, & STATE
LATITUDE LONGITUDE & DIMENSIONS

Pictures and postcards are also welcome, especially aerial views. If you're unable to determine the latitude and longitude for the object or approrrin question, please provide a description of where the object can be located on a map. All custome correspondence is read and answered (when appropriate). And please: remember to include any scenery suggestions or information on a SEPARATE page of your letter.



17402N 5102E alt. 13 RWY 7-25 RWY 13-31





17449N 5214E alt. 23 RWY 1L-19R RWY 14L-32R RWY 14R-32L RWY 1R-19L

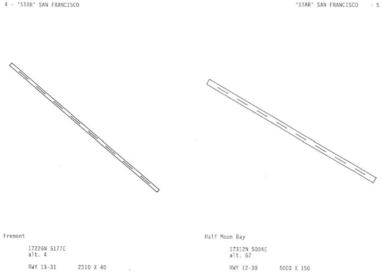
4712 X 150 4601 X 150 2800 X 75 2768 X 75

17407N 5295E alt. 185 RWY 9-27 2480 X 33

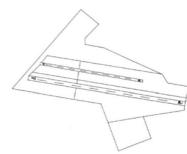
Antioch

ATIS:

124.7







Hamilton Army 17534N 5082E alt. 3

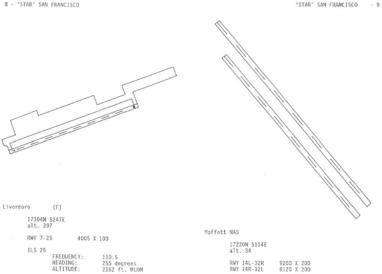
RWY 12-30

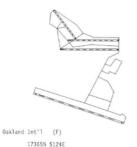
6 - 'STAR' SAN FRANCISCO

8000 X 400

Hayward Air Terminal

17329N 5145E alt. 47 RWY 10R-28L 5159 X 150 RWY 10L-28R 3536 X 75





alt. 7 RWY 11-29 10000 X 150 RWY 9R-27L 6212 X 150 RWY 15-33

3366 X 75 RWY 9L-27R 5453 X 150 ATIS:

FREQUENCY:

HEADING:

ALTITUDE:

ILS 11 FREQUENCY: 111.9 HEADING: 113 degrees ALTITUDE: 1722 ft. @LOM ILS 29

108.7

1552 ft. @LOM

128.5 or 125.0 (north fie

Palo Alto 293 degrees

17245N 5119E alt. 5

RWY 12-30

2500 X 65



RWY 1R-19L RWY 1L-19R ATIS:

ILS 28L FREQUENCY: 109.5 HEADING: 281 degrees

ALTITUDE:

ALTITUDE:

ILS 19L

FREQUENCY: 108.9 HEADING: 191 degrees

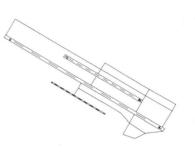
115.8

1735 ft. @LOM

2628 ft. 0 8.6 DME

17281N 5084E alt. 2 RWY 12-30 2600 X 75

San Carlos



San Jose Int'1 17185N 5164E alt. 56

RWY 12R-30L 8899 X 150 4419 X 150 RWY 12L-30R RWY 11-29 3000 X 40

ATIS:

114.1

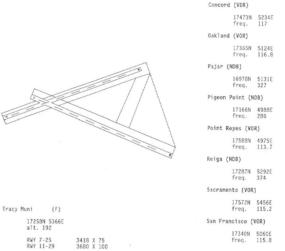
ILS 12R FREQUENCY: HEADING: ALTITUDE:

111.1 123 degrees 1798 ft. @LOM 17160N 5194E alt. 133

San Jose, Reid - Hillview

RWY 13L-31R 3101 X 75 RWY 13R-31L 3099 X 75





# 18 - 'STAR' SAN FRANCISCO San Jose (VOR) 17185N 5164E freq. 114.1 Sausalito (VOR) 17452N 5050E freq. 116.2 Scaggs Island (VOR) 17567N 5149E freq. 112.1 Travis (VOR) 17565N 5358E freq. 115.4 Woodside (VOR)

17233N 5054E freq. 113.9

CITY	AIRPORT	NORTH	EAST	ALT.	For	ILS (Recy/Free,)
Alameda NAS	Nimitz Field	17402	5102	13		
Antioch	Antioch	17407	5295	185		
Concord	Buchanan Field	17449	5214	23	*	
Fremont	Fremont	17226	5177	4		
Half Moon Bay	Half Moon Bay	17312	5004	67		
Hayward	Hayward Air Terminal	17329	5145	47		
Livermore	Livermore Muni	17304	5247	397	*	25/110.5
Mountain View	Moffett Field NAS	17220	5134	34		
Oakland	Oakland Intl	17365	5124	7	*	11/111.
						29/108.
Palo Alto	Palo Alto	17245	5119	5		
San Carlos	San Carlos	17281	5084	2		
San Francisco	San Fracisco Intl	17340	5060	10		28L/109.5
						19L/108.9
San Jose	San Jose Intl	17185	5164	56		12R/111.
San Jose	Reid-Hillview	17160	5194	133		
San Rafael	Hamilton Army	17534	5082	3		
Tracy	Tracy Muni	17258	5366	192	*	
San Rafael Tracy		17258 ates are conpensate grid overla	5366 anted a for aid on	192		

crinogonal coordinate grid overlaid on Lambert conformal conic projection.		
	LEGEND	
ជ" ♦ ០	Civil-Public use airport	
8	Restricted/Private-Nonpublic use airport, having emergency use or landmark value	
±	Rotating light in operation, sunset to sunrise	
SANTA MONICA ATIS 119.15 175-50	Airport Name Advisory Frequency (if available) Elevation (feet) — Length (hundreds of feet)	
NAME FREQUENCY <sup>©</sup>	VOR	
NAME FREQUENCY ♥	VORTAC (Distance Measuring Equipment Able)	
NAME FREQUENCY ©	VOR/DME	
NAME FREQUENCY 0	Non Directional Beacon	
_VOR/DME_ NAME FREQUENCY	If VOR falls directly on an airport, only the airport symbol will be shown. The VOR facility type is shown at the top of the box.	
AIRPORT NAME ABBREVIA	ATIONS County	

Field

International

Private Airport (prior permission before landing)

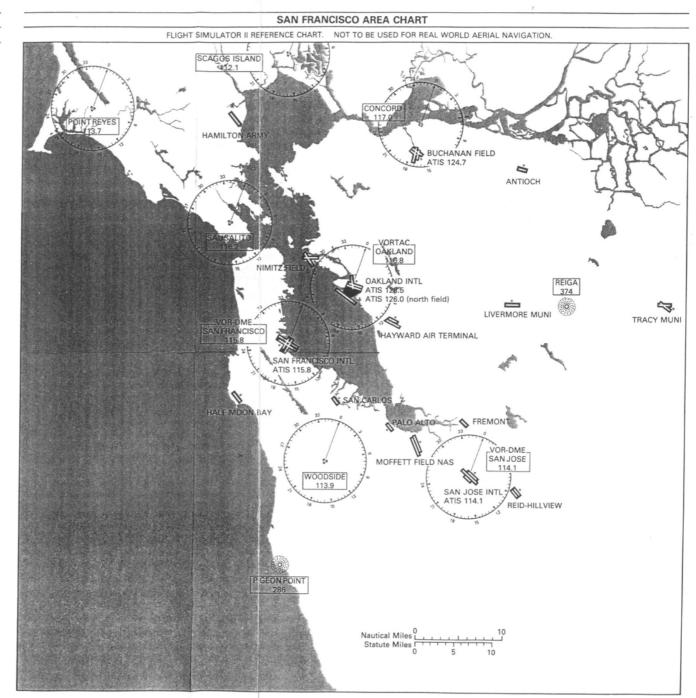
Municipal

FLD

INTL

MUNI

(PVT)



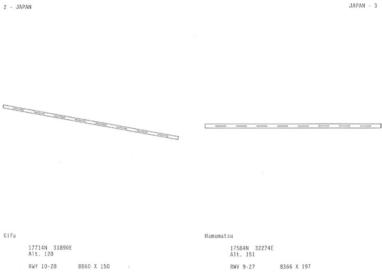


Atsugi 18118N 32707E

Alt. 205

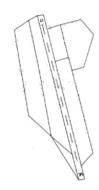
RWY 1-19 8000 X 150 ILS 1

111.3 FREQUENCY: HEADING: ALTITUDE: 1500 @ 4.1 DME



JAPAN - 5 4 - JAPAN





Hyakuri 18542N 32874E Alt. 104

RWY 3-21

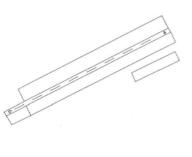
8860 X 150

18262N 32619E Alt. 299 RWY 17-35

Iruma

6562 X 148

6 - JAPAN JAPAN - 7



Komatsu

18042N 31572E Alt. 18

RWY 6-24 8860 X 150

ILS 6 FREQUENCY: HEADING: ALTITUDE:

110.1 61 1084 0 3.7 DME

Matsumoto

18170N 32090E Alt. 2155

RWY 18-36

4920 X 100

8 - JAPAN JAPAN - 9



Nagoya		
	17669N Alt. 52	3193

32E

RWY 16-34 9000 X 150 ILS 34 FREQUENCY: HEADING: ALTITUDE:

111.7 339 2312 @ 8,4 DME



18375N 32940E Alt. 139

RWY 16-34 13123 X 200 ILS 16 111.1 156 1461 @ 3.9 DME FREQUENCY:

HEADING: ALTITUDE: **ILS 34** 

FREQUENCY: HEADING: ALTITUDE:

111.9 336

1678 @ 4.5 DME

JAPAN - 11 10 - JAPAN





Shimofusa

18334N 32819E Alt. 98

RWY 18-36 7380 X 200

**ILS 18** 

109.1 186 1998 @ 6.3 DME

FREQUENCY: HEADING: ALTITUDE:

RWY 14L-32R RWY 14R-32L 6000 X 150 9840 X 200 12 - JAPAN JAPAN - 13



---

Tokyo Int'l (Haneda)

18201N 32787E Alt. 12 RWY 4-19 RWY 15L-33R

HEADING: ALTITUDE:

8200 X 150 10335 X 200 9840 X 150

RWY 15R-33L ILS 33R FREQUENCY:

110.9 332

2966 0 10.5 DME

17220N 31616E Alt. 33

Yao

RWY 9-27 4890 X 150 RWY 13-31 3940 X 100 14 - JAPAN JAPAN - 15

Aichi (NDB)

Akeno (NDB)

Ami (VOR)

Atsugi (NDB)

17633N 31976E freq. 397

17347N 31988E freq. 380

18451N 32839E freq. 116

18119N 32711E freq. 265 Chigasaki (NDB) 18055N 32712E



Yokota 18217N 32518E Alt. 457 RWY 18-36 11000 X 200

HEADING:

ALTITUDE:

ILS 35 FREQUENCY: 109.7

357

2114 0 7 DME

freq. 236 Choshi (VOR) 18427N 33082E

freq. 113.6 Daigo (NDB)

18765N 32751E freq.

Daigo (VOR) freq. 115.3

18754N 32749E

Eda (NDB) Hyakuri (VOR)

Kawakado (NDB)

Komatsu (NDB)

Komatsu (VOR)

Kowa (NDB)

Kowa (VOR)

18289N 32578E

18048N 31571E

18043N 31569E

17467N 32025E

17455N 32042E

freq. 113.5

freq. 112

freq. 325

freq. 234

freq. 251 JAPAN - 17

18172N 32716E 18546N 32873E freq. 357 freq. 113.3 Fukui (NDB) Itami (NDB)

17930N 31549F 17276N 31516F freq. 400

freq. 205 Goboh (VOR) Iwaki (VOR)

16876N 31573E 19002N 32866E freq. 116.9 freq.

16 - JAPAN

Hamamatsu (NDB)

Hamamatsu (VOR)

Handeda (VOR)

Hotaka (NDB)

Hyakuri (NDB)

18216N 32062E

freq. 387

17580N 32272F

17580N 32272F

18202N 32787F

18547N 32877E

freq. 366

116.5 freq.

freq. 114.7

freq. 229

Kumagaya (NDB) Nagova (NDB)

JAPAN - 19

17666N 31933E 18372N 32530E 360 freq. freq. 240

Nagova (VOR) Kushimoto (NDB) 17571N 31928E 16789N 31875F

18 - JAPAN

Matsumoto (VOR)

Miyakejima (NDB)

18167N 32095E

freq. 117.6

17594N 32995F

18382N 32785E freq. 114

freq. 260

freq. 114.2 freq. 275 Nanki-Shirahama (NDB)

Kushimoto (VOR) 16816N 31698E 16792N 31879E freq. 394 freq. 112.9 Marita (VOR)

18376N 32940E

freq. 117.3

18720N 32643E

freq. 114.8

17247N 31588F

freq. 340

Nasu (VOR)

Nikko (NDR) Miyakeiima (VOR) 18579N 32643F 17602N 32970E

freq. 389 freq. 117.8 Onfuku (VOR) Miyazu (VOR)

18151N 33049E 17503N 31318F

freq. 115.7 freq. 112.6

Osaka (NDR) Moriva (VOR)

Osaka (VOR) Sakura (VOR) 17270N 31541E 18366N 32901E

freq. 112.7

18391N 32727E

17153N 31584E

17155N 31587E

17696N 32452E

18251N 32630E

18003N 32927E

17986N 32942F

freq. 112.5

freq. 373

freq. 330

freq. 109.2

freq. 112.3

freq. 219

freq. 117

Shinoda (NDB)

Shinoda (VOR)

Shizuhama (VOR)

Tachikawa (NDB)

Tateyama (NDB)

Tateyama (VOR)

JAPAN - 21

freq. 113.9 Oshima (NDB) Sekiyado (VOR)

17813N 32830E

freq. 216

Oshima (VOR) 17812N 32830E

freq. 113.1

17843N 32800E

17436N 31631F

18131N 32677E

1833BN 32890E

freq. 350

freq. 379

freq. 368

freq. 392

Oshima Airport (NDB)

Otsu (NDB)

Otsu (VOR)

Sakura (NDB)

20 - JAPAN

17416N 31620E 117.1

freq. Rankin (NDB)

Tokushima (VOR) 16897N 31367E freq. 114.9

Tottori (NDB) 17391N 30998E freq. 349

22 - JAPAN

Toyama (NDB)

18250N 31774E fren. 354

Yao (NDB) 17217N 31618F

freq. 386 Yokosuka (NDB) 18041N 32806F

freq. 270 Yokosuka (VOR)

18060N 32787F freq. 116.2 Zama (NDB)

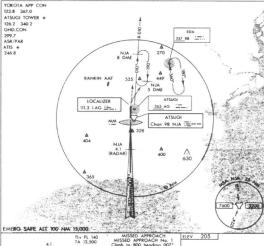
freq. 401

18156N 32659F

# **APPROACH CHARTS**

厚木飛行場 ATSUGI (RJTA)

AYASE, HONSHU I., JAPAN



Climb to 800 heading 007\*, then climb to 2000 via R-010. (RADAR) proceed to 8 DME and hold MISSED APPROACH No. 2 1500 -0075 1500 Climb to 2000 heading 007 proceed to RB NDB and hold TACAN Glide Slope 3.0° CATEGORY S-ILS 01 377/730m 193 (200-800m) 377/1220m 193 (200-1200m) 660/1520m 660/1830m 660/1220m 476 (500-1200m) S-LOC 01 476(500-1600m) 476(500-2000m) 660-1600m 700-1600m 720-2400m 760-3200m CIRCLING\* 455(500-1600m) 495(500-1600m) 515(600-2400m) 555(600-3200m) 405/730m 405/1220m S-PAR OI 221 (200-800m) GS 3.0° 221 (200-1200m) GS 3.0° \*Circling NA E of Rwy 01/19.

300 301 283 007° to HIRL RWY 01-19 TACAN

ILS

## 小松飛行場 KOMATSU (RJNK)

NIIGATA

KMC

25 10.900

KOMATSU, HONSHU I, JAPAN CAUTION east and south of runway G5 Not usable below 280 MSL

Ropidly rising high terrain

LOCALIZER 110.1 I-KM ≌ ⊨ Chon 38

NAGOYA

18 ELEV

TDZE

- 495

4 DME . 282 LKM 7.3 DME

A 1169

TLv FL 140 TA 13,500

4 DME

1084

402 (500-1600m)

-256°-

1100

LOC

EMPOUTE FACILITIES

KMC VORTAC

1-KM

(400-1400m)

4000

2.5° TCH 58

DME Fr

GS

420-2000m

402(500-2000e **(v)** CIRCLING 500-1600m 500-2000m 500-2400m 800-4400m 487 (500-1600m) 82(500-2000m) 482(500-2400m) 782(800-4400m) S-PAR OG 300/1220m 282 (300-1200m) GS 2.5° FAF to MAP 3.7 NM if MM out Knots 90 120 150 180 200 2:28 151 1:29 1:14 VOR/ILS RWY 06 36"23"N-136"25"E

420-1600m

VOR/ILS RWY 06

(169)

FUKUI

2000

7.3 DME

330-1400m

420-1200m

402 (500-1200m)

EMERG SAFE ALT 100 NM 12,500

Left turn

14 NM

2000

CATEGORY

S-ILS 06

5-LOC 06

MISSED APPROACH Climb to 500, Then left turn to 4000 out R-015. Turn

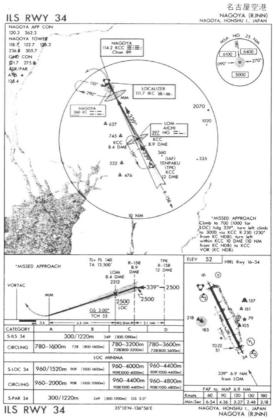
right within 15 NM, return to KMC and hold.

KOMATSU APP CON

KOMATSU TOWER 126.2 236.8 GND CON 275.8 ASR/PAR

120.1 261.2

KOMATSU, HONSHU I, JAPAN KOMATSU (RJNK)



### 下総飛行場

SHIMOFUSA (RJTL) SHIMOFUSA, JAPAN

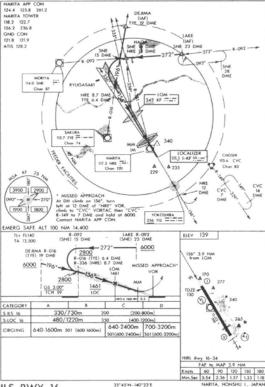


ILS RWY 18

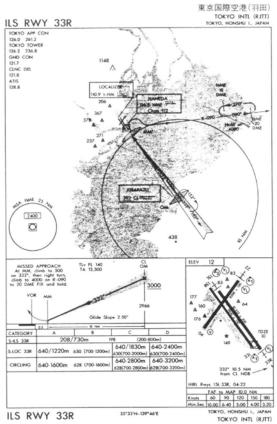
TOKYO APP CON

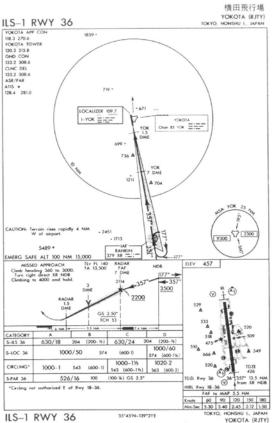
NARITA, HONSHU L. JAPAN

### ILS RWY 16



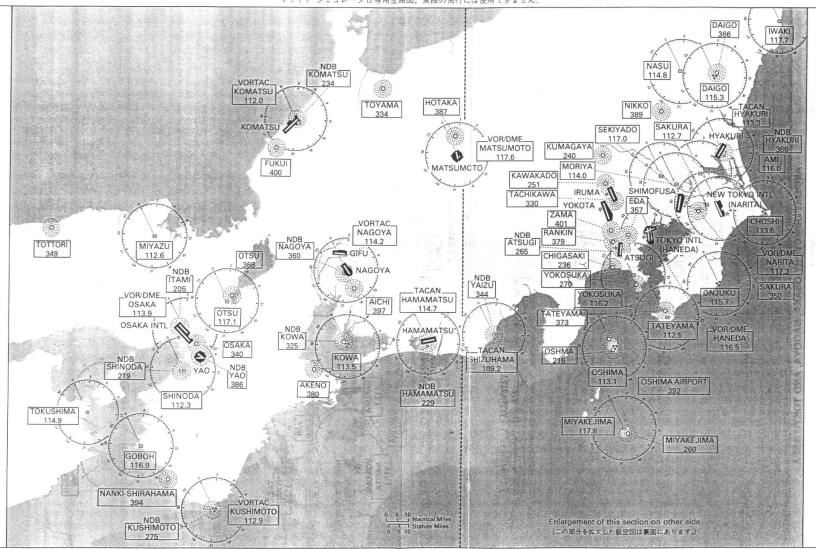
新東京国際空港(成田) NEW TOKYO INTL (RJAA) ILS RWY 34 NARITA, HONSHU I., JAPAN 180 240 NARITA APP CON V/V(fpm) 572 858 286 1144 124.4 125.8 261.2 \* Required by ATC until reaching 2800' NARITA TOWER 118.2 122.7 NRE 126.2 236.8 DME - (16) GND CON 121.8 121.9 MORIYA ATIS 128.2 114.0 SNE CHQSHI 111.9 I-YO ==== 113.6 CVC A 340 Chan 83 KUZUM 342 KF .... мм CVC NARITA A 235 - LOM -DME 256 YQ =:== 117 3 NRS :--229 Chan 120 12.5 DME BEACH (LAF) SNE 15 DME 15 DME 25 COURSEWAY NRE 14 DME 2500 FEEDER FACRITIES -270 1300 NRE EAROUTE FACRITIES 19 DAK EMERG SAFE ALT 100 NM 14,400 MISSED APPROACH TA 13.500 COURSEWAY At DH climb on 336" turn right at 7 DME of "NRE" VOR, at or above 2800 to "CVC" VORTAC. then "CVC" R-149 to 7 DME R-155 P-156 TLv FL 140 14 DME 12.5 DAVE HIRL Rwy 16-34 LOM and hold at 6000. 4000 Contact NARITA APP CON. 1678 4000 LVOR GS 3.00° TCH 59 277 1678 LOC CATEGORY D 5-45-34 200 (200-800m) 339/730m 5-LOC-34 540/1220m (500-1200m) 640-2400m 700-3200m CIRCLING 640-1600m 501 (600-1600m) 501(600-2400m) 561(600-3200m) 336" 4.6 NM from LOM FAF to MAP 4.6 NM 60 90 120 150 180 4:36 3:04 2:18 1:50 1:32 NARITA, HONSHU I., JAPAN ILS RWY 34 35°45'N-140°23'E NEW TOKYO INTL (RJAA)





### OSAKA, NAGOYA, AND TOKYO AREA CHART

フライト シミュレータ II 専用空路図。実際の飛行には使用できません。

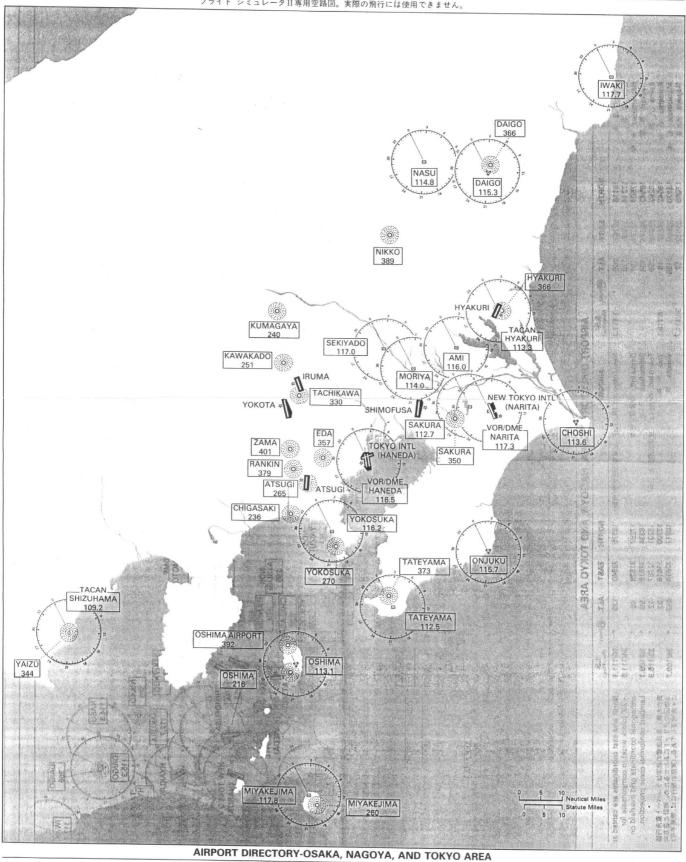


### AIRPORT DIRECTORY-OSAKA, NAGOYA, AND TOKYO AREA

AIRPORT	NORTH	EAST	ALT.	F (Fuel)	ILS (Rwy/Freq.)	AIRPORT	NORTH	EAST	ALT.	(Fuel)	ILS (Rwy/Freq.)	
Atsugi 厚 木 Gifu 岐 阜	18118 17714	32707 31890	205 128	*	1/111.3	New Tokyo Intl. (Narita) 新東京国際空港(成田)	18375	32940	139	*	16/111.1 34/111.9	North and east coordinates are canted at +26° (clock wise) to compensate for
Hamamatsu 浜 松	17584	32274	151			Osaka Intl. 大阪国際空港	17267	31528	49	*		orthogonal coordinate grid overlaid on
Hyakuri 百 里	18542	32874	104			Shimofusa 下 総	18334	32819	98	*	18/109.1	Lambert conformal conic projection.
Iruma 入間	18262	32619	299	*		Tokyo Intl. (Haneda) 東京国際空港(羽田)	18201	32787	12	*	33/110.9	
Komatsu 小 松	18042	31572	18		6/110.1	Yao 八 尾	17220	31616	33			表の北緯、東経座標の数字はランバート直角円錐
Matsumoto 松本	18170	32090	2155			Yokota 横 田	18217	32618	457	*	36/109.7	法地図のグリッドにあわせるため、時計と逆方向
Nagoya 名古屋	17669	31932	52		34/111.7							に+26°修正してある。(実際の飛行には、使用不可)

## ENLARGED SECTION OSAKA, NAGOYA, AND TOKYO AREA CHART

フライト シミュレータII専用空路図。実際の飛行には使用できません。



AIRPORT	NORTH	EAST	ALT.	F (Fuel)	ILS (Rwy/Freq.)	April 1
Atsugi 厚 木	18118	32707	205	*	1/111.3	North and east coordinates are canted at
Hyakuri 百 里	18542	32874	104			+ 26° (clock wise) to compensate for
Iruma 入間	18262	32619	299	*		orthogonal coordinate grid overlaid on
New Tokyo Intl. (Narita) 新東京国際空港(成田)	18375	32940	139	*	16/111.1	Lambert conformal conic projection.
Shimofusa 下 総	18334	32819	98	*	34/111.9 18/109.1	表の北緯、東経座標の数字はランバート直角円錐
Tokyo Intl. (Haneda) 東京国際空港(羽田)	18201	32787	12	*	33/110.9	法地図のグリッドにあわせるため、時計と逆方向
Yokota 横 田	18217	32618	457	*	36/109.7	に+26°修正してある。(実際の飛行には、使用不可)

### Maps by Michelle Maase & Ken Ruminski

"Western European Tour" includes the airports, radio nav-aids, and scenery details for large portions of Great Britain, France, and West Germany, Several airports (and a few surprises) can also be found outside the three main detailed scenery areas, along with additional radio transmitters provided to aid in longrange navigation and cross-country flight. This Scenery Disk has enough peneric cross-country scenery and highly-detailed (sight-seeing) scenery areas to keep you flying for a long time. The scenery was developed using the same documentation that pilots would use to navigate these areas. The following notes and recommendations will help you to explore these new scenery areas.

### Southern Great Britain

Detailed airports include Bournemouth, Cardiff, Heathrow (London), Luton, and Norwich

### City of Interest: London

Parliament 13743E 18659N

Thames River Stonehenge Site

Westminster Abbey

### Tower Bridge

18661N 13759E

18660N

18570N

18817N

13742F

13245E

13657E

Tower of London

Buckingham Palace

Hyde Park with Serpentine Pond Post Office Tower St. Paul's Cathedral City lights at dusk and night

Chalk Figures (prehistoric and recent) Whipsnade Lion

Uffington White Horse 13369E 18743N Westbury White Horse 18633N 13209E

Long Man of Wilmington 18365N 13788E

Lighthouse beacons along South England coast

Note to 68000 FS2 Users: After loading the Atari ST/Amiga Flight Simulator II (or Macintosh Microsoft Flight Simulator) program, you start out on Oakland Runway 27R. When you log-in the "Western European Tour" Scenery Disk you will automatically be transported to Heathrow Airport in London. You may return to Heathrow any time after this by selecting the prerecorded situation for Oakland 27B from the SITUATION menu Northern France

Detailed airports incude Caen, Le Touquet, Lille, and Charles de Gaulle (Paris).

City of Interest: Paris Arc de Triomphe 17437N 14254E Sacre Coeur Cathedral 17441N 14269E Montmartre Hill Eiffel Tower 17430N 14254E Tour Montpamasse

17423N 14261E Concorde Obelisk 17433N 14261E Louvre Museum 17430N 14266F Notre Dame Cathedral 17426N 14269E lle St. Louis (island in the river) Seine River

City lights at dusk and night Bois de Boulogne (park) Bois de Vincennes (park) Jardin du Luxembourg (park) Place des Invalides (park) Champ de Mars (park) Pere Lachaise Cemetery

Southern West Germany

Detailed airports include Frankfurt and Neubiberg.

City of Interest: Munich

Olympiaturm Tower 17028N 18832F

Olympic Grounds (park) Hauptbahnhof 17015N 16835E

Frauenkirche. 17014N 16839E

Residenz 17015N 16841E Deutsches Museum 17011N 16842F

Isar River with islands

Theresienwiese beer garden (park)

Hofgarten (park)				
City of Interest: Numberg Fernmeldeturm Tower Pegnitz River with parks		17553N	16676E	
City of Interest: Stuttgart Fernsehlurm Tower Schlossgarten (park) Two adjacent mountains	-	17269N	16172E	
City of Interest: Frankfurt Fernmeldeturm Tower Palmengarten (park)		17854N	16030E	
Opera House		17845N	16034E	
Cathedral		17841N	16040E	
Skyline buildings				
Zoologischer Garten (park)				

Jardin Botanique (park) Orangerie (park) Three mountains (southwest of city)

Englischer Garten (park)

### Europe

Included is a map of Europe that shows the radio aids located outside of the three main detailed scenery areas. Use these radio aids to navigate between areas.

Several additional Europe scenery details are also available. Helsinki (Finland) Airport is located at:

22508N 19462F

This airport includes refueling facilities.

Three mountains (northwest of city)
City of Interest: Strasbourg, France
Rhein River and canals

The city of Moscow is also accurately located inside Russia. While we could have listed the exact city coordinates, we thought it might be more interesting for you to try and locate Moscow for yourself (see following). City scenery includes the Kremlin Wall and park, "Red Square", several other parks, a river, and several small takes. Nurnberg to Helsinki
It's just possible to fly from Nurnberg, West Germany to Helsinki, Finland with a full load of fuel. Start out at Nurnberg Airport:

17586N 16691E

Take off and turn to a heading of 36 degrees. Level out at 5,000 feet, then cut your airspeed to 120 knots to conserve fuel. Your mappraids compass here will lend to drift as you fly east, so be sure to keep yourself on a constant 35degree heading. Also, make sure to keep you airspeed at or belows 120 killing I you fly any faster than this, you will probably run out of fuel and splash into the Baltic Sea before reaching Finland!

Keep your eves coen and starts canning the horizon for Helsinki Airport as soon

as you cross over into Finland. The airport is approximately 20 minutes inland from the coast and is the only scorny detail in the entire county, or is doubt be relatively easy to locate if you fly anywhere near it. With any luck you should be able to find and ladd at Hebrinki Airport with about twenty minutes of fuel left in your tainks.

The flight from Numberg to Helsinki takes about six hours at 120 knots, gear up, flass off, at an altitude of 5.000 feet.

## Helsinki to Moscow Your success in flying nonstop from Numberg all the way to Helsinki. Finland on

### to Moscow, deep in the Russian heartland.

After refueling your aircraft, you find yourself sitting on the runway and cleared for takeoff from Helsinid Airport at coordinates: 2250BN 19462E

a single tank of fuel has won you much notoriety, and strengthened your resolve to attempt an even greater feat; a secret, unauthorized solo flight from Helsinki

Take off and turn to a heading of 130 degrees. No radio nav-aid information is available for this flight, but you've determined that if you stay on this heading you should come near enough to Moscow for you to see and identify it isually. Your mannetic compass will tend to fluctuate as you fily from weet to east so make

magnetic compass will tend to fluctuate as you fly from west to east, so make sure you maintain a 130-degree heading.

Sure you maintain a 13U-begree neading.

The flight from Helsinki to Moscow should take about three and one half hours at 135 knots, oner up. flaps off, at an altitude of 5,000 feet.

You've landed your airplane in a remote area of western Russia: 21739N 22124E

Find Moscow's Red Square (the Easy Way)

and have taken some time to relax and wander the countryside. Presently you arrive at a nearby village, where the friendly townstolk inform you that you are very near Moscow and, of course, you shouldn't pass up this opportunity to see the nation's capital. The villagers assure you that the people of Moscow are very friendly and will warmly welcome someone with bas made such a long flight to the properties of the prop

visit them. They also suggest that perhaps you could land in Red Squiare near the Kremin.

Neither you nor they have any radio nav-aid internation, but they left you that if you take off and follow a southand hadding you should be able to sport you on the hostion in a matter of minutes. You thank them for their hospitality and ceilinb back into your dains to depart. The trito Moscovir or this location should

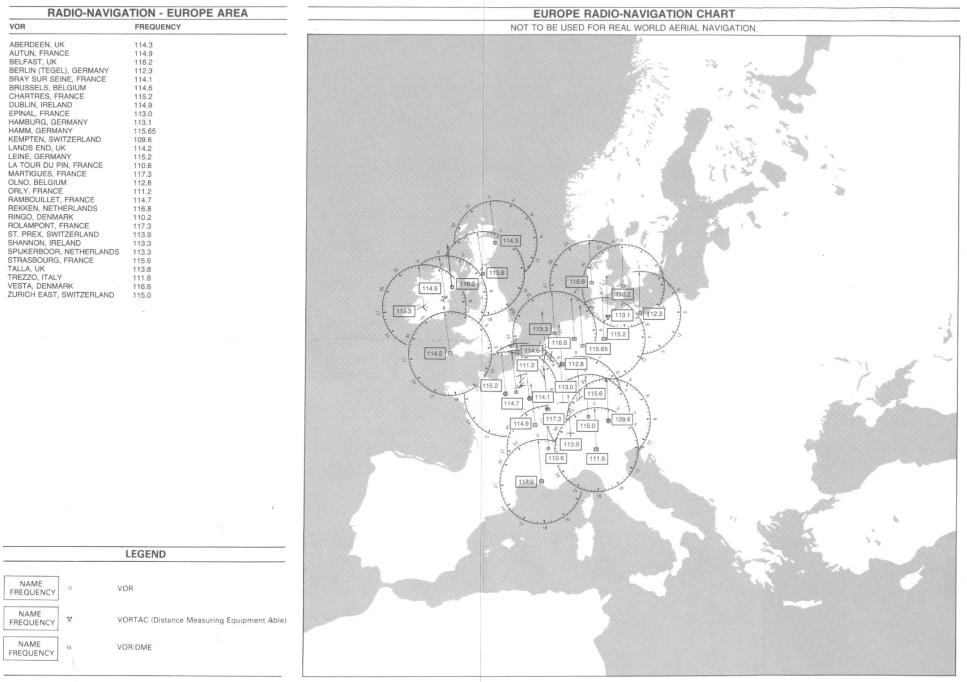
take about 45 minutes at 130 knots, gear up, flaps off, at an altitude of about 5,000 feet. Good luck!

Above all else, explore! A lot of work went into this project. We hope that you

enjoy the results as much as we do!

Special thanks to Dave Robins and British Airways AERAD for providing

documentation used in the development of this Scenery Disk.



### Abbeville (VOR) 17997N 14192E freq. 1166

Abbeville 17998N 14192E alt. 220

RWY 3-21 5247 X 163

NORTHERN FRANCE - 1

Amiens 17862N 14333E alt. 197 RWY 12-30 4132 X 85

Autun, France (VOR)

freq. 114.9 Beauvais

17692N 14235E alt. 358

RWY 13-31

RWY 5-23

16519N 14723E

7970 X 170 3627 X 150

### 2 - NORTHERN FRANCE

### NORTHERN FRANCE - 3

### Berck-Sur-Mer 18127N 14142E alt. 30

RWY 6-24 2951 X 196 RWY 18-36

1967 X 196

### Bernay / St. Martin

17598N 13776E alt. 551

RWY 10-28 RWY 17-35

3017 X 327 2787 X 327



### Berry Head (VOR)

18339N 12804E 112.7 freq.

Boulogne (VOR)

18203N 14240E freq. 113.8

Bray sur Seine, France (VOR)

17205N 14519E freq. 114.1



13550E

### Calais

alt. 10 RWY 7-25

17316N 14253E alt. 269

RWY 5-23

9839 X 327 5739 X 196 RWY 12-30



### Brussels, Belgium (VOR) 18233N 14929E

freq. 114.6



17673N 13497E alt. 256

17657N

freq.

RWY 13-31 5431 X 150 RWY 6-24 3870 X 98



115.4

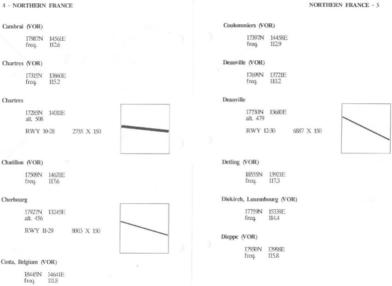


Caen (VOR)

18348N 14272E

4992 X 150





6 - NORTHERN FRANCE NORTHERN FRANCE - 7 Dieppe Lands end (VOR) 17915N 13970E 1834IN 12224E alt. 344 freq. 114.2 RWY 13-31 2689 X 196 Le Havre 17804N 13672E alt. 312 Dover (VOR) RWY 5-23 6887 X 131 18474N 14110E freq. Epinal, France (VOR) Le Mans 17118N 15280E 17125N 13607E 113 alt. 194 freq. RWY 3-21 4624 X 98

Evreux (VOR) 17542N 13959E freq.

112.4

Goodwood (VOR)

18415N 13546E 114.75 freq.

Hamm, Germany (VOR) 18588N

15800E freq. 115.65

Le Touquet (F) 18165N

14159E alt. 36 RWY 14-32

7379 X 131 3935 X 131 RWY 7-25

### 8 - NORTHERN FRANCE Lille (F) 18138N 14562E

alt. 157 RWY 8-26 9269 X 150 4263 X 98 RWY 2-20

13657E 113.6

Lydd (VOR) 18421N 13979E

18665N

freq.

London (VOR)

114.05 freq.

Mantes (VOR)

17508N 14032E freq.

Midhurst (VOR)

18492N 13593E freq. 114

Montdidier (VOR) 14344E 1136 freq.

18085N frea. Orly (VOR)

17368N

Montmedy, France (VOR)

Monts d'Arree, France (VOR) 17445N 12597E freq. 112.5

freq. 109,4

Nicky, Belgium (VOR)

freq.

Ockham (VOR)

18346N

18590N

freq.

Olno, Belgium (VOR)

freq.

14270E

111.2

15245E 1128

NORTHERN FRANCE - 9

13651E 115.3

117.4

14855E

15052E

RWY 2-20 7871 X 196 10889 X 150 RWY 8-26

Pontoise (VOR) 17540N 14195E freq. 111.6

> 17352N 14157E

freq. 114.7

Rambouillet (VOR)

Southampton (VOR) 18346N 13770E freq. 113.35

freq.

Strasbourg (VOR) 17172N 15717E

115.6

12 - N	ORTHERN FRAN	CE		
Toussu	s-Le -Noble			
	17390N 14194E alt. 538			
	RWY 8-26 RWY 8-26	3607 X 98 3443 X 98		

AIRDORT DIRECTORY MORTHERN FRANCE	ENLARGED SECTION NORTHERN FRANCE AREA CHART
AIRPORT DIRECTORY - NORTHERN FRANCE  CITY AIRPORT NORTH EAST ALT, F, ILS  (F)(4) (Rep)(Freq)	NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.
Abbeville Abbeville 17998 14192 220 Amiens Glisy 17862 14333 197 Beauvais Tille 17692 14235 358 Berck-Sur-Mer Berck-Sur-Mer 18127 14142 30 Bernay St. Martin 17598 13776 551 Bretigny Bretigny 17316 14253 269 Caen Carpiquet 17673 13497 256 Calais Dunkerque 18348 14272 10 Chartres Champhol 17285 14011 508 Cherbourg Maupertus 17927 13245 456 Deauville St. Gatlen 17730 13680 479 Dieppe St. Aubin 17915 13970 344 Le Havre Octeville 17804 13672 312 Le Mans Arnage 17125 13607 194 Le Touquet Paris-Plage 18165 14159 36 Le Touquet Paris Charles De Gaulle 17490 14331 387 28/109.1  Nautical Miles 1 10 20 30 40 50 Statute Miles 1 10 20 30 40 50 Statute Miles 1 10 20 30 40 50	MIDHURST 114.95  SOUTHAMPTON 111.8  SOUTHAMPTON 111.8  SEAFORD 114.05  LYDD 114.05  ABBEVILLE 116.6
0 20 40 60 80 100 Kilometers	CHERBOURG/MAUPERTUS  LE HAVRE/OCTEVILLE
North and east coordinates are canted at approximately – 5° (clockwise) to compensate for orthogonal coordinate grid overfaid on Lambert conformal conic projection.	DEAUVILLE'ST. GATIEN  DEAUVILLE BEAUVAIS/TILLE  ROUEN/BOOS  BEAUVAIS/TILLE  MONTDIDIER 113.6  REIMS 112.4  PONTOISE 19
LEGEND	BERNAY ST. MARTIN 111.6 PARIS/CHARLES DE GAULLE
Civil-Public use airport  Restricted/Private-Nonpublic use airport, having emergency use or landmark value  SANTA MONICA ATIS 119.15 175-50 Advisory Frequency (if available) Elevation (feet) — Length (hundreds of feet)	MANTES 112.0  TOUSSUS-LE-NOBLE  RAMBOUILLET 114.7  PARIS/ORLY  PARIS/ORLY  TOUSSUS-LE-NOBLE  PARIS/ORLY  TOUSSUS-LE-NOBLE  PARIS/ORLY  TOUSSUS-LE-NOBLE  TOU
NAME FREQUENCY © VOR	CHARTRES
NAME FREQUENCY VORTAC (Distance Measuring Equipment Able)	115.2 CHARTRES/CHAMPHOL
NAME FREQUENCY © VOR/DME	LE MANS/ARNAGE  BRAY SUR SEINE 114.1
NAME FREQUENCY Non Directional Beacon	27
VOR/DME If VOR falls directly on an airport, only the airport NAME symbol will be shown. The VOR facility type is shown at the top of the box.	

### Allersberg (VOR) 17466N 16733E frea. 111.2

SOUTHERN WEST GERMANY - 1

Augsburg Mulhausen 17I32N 16657E

Baden-Baden/Oos 17289N 15893E alt. 403

alt. 1512

RWY 7-25 4198 X 98

RWY 4-22 4198 X 98 RWY 4-22 3279 X 98 17795N 16838E freq. 110.6

Bayreuth (VOR)

Berlin (Teoel), Germany (VOR)

18893N 17217E freq. 112.3

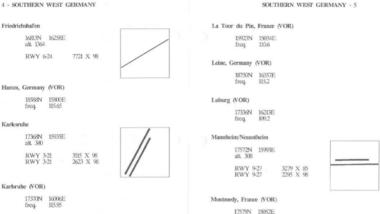
Brussels, Belgium (VOR)

freq.

18233N 14929E 114.6

17118N 15280E.

freq.



Karlsruhe (VOR)

Kempten (VOR)

1684IN

freq.

freq.

Kitzingen (VOR) 17686N

109.6

16496E

16451E

1123

16033F

freg. 109.4

freq.

Munich (VOR)

## 6 - SOUTHERN WEST GERMANY

17016N 16876E

alt. 1738

### RWY 7-25 9197 X 196

## Neubiberg (F)

Munich

16989N 16858E alt. 1811 RWY 7-25 8003 X 91

Numberg (VOR) 17595N 16619E freq. 117.4

### Nurnberg

alt. 1046

17586N 16691E

8855 X 150

RWY 10-28

1128

Olno, Belgium (VOR)

15245E

Strasbourg (VOR)

17172N 15717E freq. 115.6

Rekken, Netherlands (VOR) 18727N 15552E

> freq. 1168

> freq. 114.7

Rolampont, France (VOR)

16953N 15048E 117,3

freq. Spijkerboor, Netherlands (VOR) 18913N 15069E

freq. 113.3

St. Prex. Switzerland (VOR) 16330N 15355E

Roding (VOR) 17403N 17095E

113.9 freq.

SOUTHERN WEST GERMANY - 7

8 - SOUTHERN WEST GERMANY Strasbourg 17188N 15734E alt. 502 RWY 5-23 7871 X 150 Stuttgart 17241N 16176E alt. 1299 RWY 8-26 8363 X 163 Tango (VOR) 17214N 16189E freq. 112.5 Trezzo, Italy (VOR) 15912N 16248F. freq. 111.8

Tulln, Austria (VOR)

17139N 18069E
freq. 111.4

Zurich East, Switzerland (VOR)

16770N 16051E freq. 115

AIRPORT D	IRECTORY - SO	UTHERN WEST GERMANY	ENLARGED SECTION SOUTHERN WEST GERMANY AREA CHART	
CITY	AIRPORT	NORTH EAST ALT. F ILS (Fuel) (Rwy/Freq)	NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.	
Augsburg Baden Donaueschingen Egelsbach Frankfurt Friedrichshafen Karlesruhe Mannheim Munich Munich Numberg Strasbourg Stuttgart	Mulhausen Baden-Baden/Oos Villingen Egelsbach Main Friedrichshafen Forchheim Neuostheim Munich Neubiberg Numberg Entzheim Stuttgart	17132 16657 1512 17289 15893 403 16943 15890 2227 17779 16028 384 17803 15997 364 - 25L/110.7 16813 16258 1364 17368 15935 380 17572 15993 308 17016 16876 1738 16989 16858 1811 - 17586 16691 1046 17188 15734 502 17241 16176 1299		
less than - 3° (clock	10 20 30 40 20 40 60 20 40 60  ordinates are canted at kwise) to compensate redinate graduate for overlaid on the control of the compensate redinate graduate graduat	40 50 0 50 80 100	FRANKFURT 114.2  MAIN O EGELSBACH CHARLIE  BAYREUTH 110.6	
	LEGE	END	115.5 KITZINGEN ERLANGEN	
87 0 o	Civil-Pub	lic use airport	NURNBERG 114.9	
8	Restricte	d/Private-Nonpublic use airport, mergency use or landmark value	NEUOSTHEIM NURNBERG	
SANTA MONICA ATIS 119.15 175-50	Airport N Advisory		KARLSRUHE 115.95  ALLERSBERG 111.2	1
NAME FREQUENCY	o VOR		FORCHHEIM  LUBURG 109.2  DINKELSBUHL 117.8  RODII	
NAME FREQUENCY	♥ VORTAC	(Distance Measuring Equipment Able)	BADEN-BADEN/OOS	Joseph
NAME FREQUENCY	© VOR/DMI	E	STUTTGART O TANGO 112.5	
NAME FREQUENCY	O Non Dire	ctional Beacon	STRASBOURG 115.6 ERDING 113.6	
VOR/DME_ NAME FREQUENCY	symbol w	is directly on an airport, only the airport vill be shown. The VOR facility type is the top of the box.	MUNICH NEUBIBERG MUNICH 112.3	

## Abbeville (VOR)

SOUTHERN UNITED KINGDOM - 1

freq. 1166 Belfast, UK (VOR)

17997N 14192E

20117N 12537E freq. 116.2

Bembridge 18356N 13445E

alt. 56

RWY 12-30 2742 X 72

Berry Head (VOR) 18339N 12804E

freq. 112.7 Birmingham Intl

19110N 13388E

alt. 325

RWY 15-33 7399 X 150

RWY 6-24 4316 X 150

Boulogne (VOR)

18203N 14240E freq.

## 2 - SOUTHERN UNITED KINGDOM

### Bournemouth (Hurn) (F) 18426N 1326IE alt. 36 RWY 8-26

RWY 17-35 Bovington (VOR)

6028 X 150

4841 X 150

6592 X 150

3207 X 150



freq. Brecon (VOR) 1887IN 12957E



18709N 13074E alt. 620

RWY 9-27



Brussels, Belgium (VOR)



freq. 114.6

Cambrai (VOR) 17987N 14561E freq.











Cardiff (F) 18743N 12912E alt. 220

> RWY 12-30 RWY 3-21

Clacton (VOR) 18763N freq.







18445N 14641E 111.8 freq.









SOUTHERN UNITED KINGDOM - 3

6441 X 150



18994N













RWY 18-36 Daventry (VOR)

18973N 13532E 116.4 freq.

Deauville (VOR) 17699N 13721E 110.2 freq.

Detling (VOR) Gam (VOR) 18555N 1392IE freq.

Diekirch, Luxembourg (VOR)

17759N 15339E freq. 114.4

Dieppe (VOR)

17930N 13998E

freq.

RWY 4-22 Goodwood (VOR)

RWY 9-27 18415N 13546E freq.

114.75

19685N 12334E 114.9 freq.

18475N 12846E. alt. 102

RWY 8-26

RWY 13-31

19420N 13636E

Gloucester / Cheltenham

alt. 95 RWY 18-36

112.8 freq.

18896N 13249E

Exeter

2295 X 91 4664 X 118 3188 X 131

6828 X 150

4395 X 150











### 6 - SOUTHERN UNITED KINGDOM

### SOUTHERN UNITED KINGDOM - 7

### Halfpenny Green 19155N 13264E alt. 292

RWY 4-22 RWY 10-28 RWY 16-34

2099 X 72 2492 X 72 3863 X 72



### Hamm, Germany (VOR)

18588N 15800E 115.65 freq.

### Heathrow (F)

18657N 13660E alt. 79

RWY 10-28 12798 X 150 11998 X 150

RWY 10-28 RWY 5-23 7734 X 150



### Honiley (VOR)

19066N 13405E freq.



18837N 14108E alt. 128

RWY 8-26 3417 X 341 RWY 14-32 2984 X 301



### Lambourne (VOR) 18710N freq.

13823E 115.6

### Lands end (VOR)

18341N 12224E 114.2 freq.

### London (VOR)

18665N 13657E 113.6 freq.

### London - Gatwick

18517N 13709E alt. 203

RWY 8-26 RWY 8-26 8416 X 150 10364 X 150

### Luton (F)

18822N 13703E

alt. 525 RWY 8-26 RWY 18-36

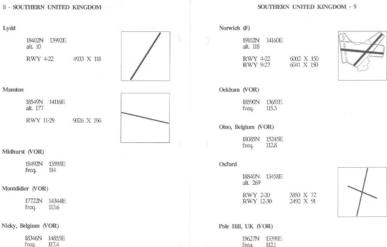
RWY 6-24





18421N 13979E freq. 114.05





Montdidier (VOR)

freq.

freq.

Rekken, Netherlands (VOR) 15552E

freq. 116.8

112.1

### 10 - SOUTHERN UNITED KINGDOM SOUTHERN UNITED KINGDOM - 11 Seaford (VOR) Southend 18345N 13770E 18663N 13960E freq. 117 alt. 49 RWY 6-24 5261 X 118 Shannon, Ireland (VOR) RWY 15-33 3712 X 91 19567N 11619E freq. 113.3 Spijkerboor, Netherlands (VOR) Shoreham 18913N 15069E 113.3 freq. 18391N 13666E alt. 7 Stu (VOR) RWY 3-21 2702 X 59 19066N 12529E freq. 113.1 Southampton (VOR) Talla, UK (VOR) 18346N 13770E. 20408N 13209E freq. 113.35 113.8 freq. Southampton 18477N 13397E alt 43

RWY 2-20

5648 X 118

AIRPORT DIRECTO	RY - SOUTHERN UNITED KINGDOM	ENLARGED SECTION SOUTHERN UNITED KINGDOM AREA CHART
CITY AIRPORT	NORTH EAST ALT. F ILS (Fuel) (Rwy/Freq)	NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.
Bembridge Isle of Wigh Birmingham Bournemouth Bristol Cambridge Cardiff Cranfield Exeter Gloucester Halfpenny Green Ipswich London Heathrow ATIS Luton Lydd Lydd Manston Norwich Norwich Shoreham Southampto Southend Surming Birmingham Birmingham Southend Birmingham Gambirmingham Birmingham Birmingham Birmingham Birmingham Hurn Birmingham Birmingham Birmingham Birmingham Hurn Birmingham Birmingha	nt 18356 13445 56 n Intl 19110 13388 325 n 18426 13261 36 * ort 18709 13074 620 n 18940 13857 49 18743 12912 220 * 18911 13649 364 18475 12846 102 n 18896 13249 95 Green 19155 13264 292 18837 14108 128 18517 13709 203 18657 13660 79 *10L/110.3  121.85  18822 13703 525 * 18402 13992 10 18549 14116 177 19102 14160 118 * 18840 13458 269 18391 13666 7	GAMSTON 112.8  NORWICH  HALFPENNY GREEN  HONILEY  112.9  DAVENTRY  116.4  CRANFIELD  IPSWICH
Nautical Miles 0 10 Statute Miles 0 10 Statute Miles 0 20 Kilometers 1 1 North and east coordinates are approximately -8° (clockwise) tor orthogonal coordinate grid of Lambert conformal conic project	to compensate overlaid on	OXFORD- KIDLINGTON  BRECON 1117.45  CARDIFF 10  BRISTOL  BRISTOL  CARDIFF 10  BRISTOL  CARDIFF 10  BRISTOL  CARDIFF 10  BRISTOL  CARDIFF 10  CARDIFF 1
a o	Civil-Public use airport	SEAFORD J
®	Restricted/Private-Nonpublic use airport, having emergency use or landmark value	BEMBRIDGE GOODWOOD 117.0 BOULOGNE
SANTA MONICA ATIS 119.15 175-50	Airport Name Advisory Frequency (if available) Elevation (feet) — Length (hundreds of feet)	BERRY HEAD 112.7
NAME FREQUENCY °	VOR	The state of the s
NAME FREQUENCY	VORTAC (Distance Measuring Equipment Able)	
NAME FREQUENCY	VOR/DME	
NAME FREQUENCY O	Non Directional Beacon	
VOR/DME_ NAME FREQUENCY	If VOR falls directly on an airport, only the airport symbol will be shown. The VOR facility type is shown at the top of the box.	

### RARRERS POINT 13384N 60862E alt. 33

BARKING SANDS PMRF 13695N 60174F alt. 16

RWY 4-22 8335 X 200 RWY 4-22 8335 X 200

RWY 11-29 8410 X 200

RWY 16-34 6010 X 150

BRADSHAW (BSF) (NDB) 12724N 61872F freq. 339

DILLINGHAM

13496N 60810E

FORD ISLAND ALF HI 23 13409N 60905E 13671N 60318E alt. 16 alt. 479

HAWAII - 3

RWY 4-22 4005 X 55 RWY 7-25 2000 X 75 GENERAL LYMAN FLD, HILO (F) HILO (ITO) (VOR) 12707N 62094E 12711N 62112E alt. 39 freq. 116.9

HONOKAA

2 - HAWAII

RWY 8-26

RWY 3-21

9800 X 150 5605 X 150

alt. 1440 HAIKU RWY 8-26 1800 X 75 13661N 60315E alt. 384 RWY 6-24 2400 X 75 HONOLULU (HNL) (VOR)

12864N

RWY 4-22

RWY 4-22

61907E

9000 X 150

6950 X 150

13394N 60879E freq. 114.8 HANA HONOLULU INTL (F)

13165N 61694E 13388N 60916E alt. 75 alt. 13 RWY 8-26 3610 X 100 RWY 8-26 12360 X 150 RWY 8-26 12000 X 200

### freq. 113.3 KANEOHE BAY (NGF) (NDB) 13443N 60985E freq. 265 KANEOHE BAY MCAS 13443N 60984E alt. 16

RWY 4-22

7770 X 200



61698E freq. 115.7

61309E

LANAL LANAI CITY MCGREGOR POINT (MPH) (NDB) 13162N 61318E 13157N 61487E alt. 1309 freq. 353

> MOLOKAI (MKK) (VOR) 13311N

freq. 116.1

13317N

alt. 453

MOUNTAIN VIEW

12636N

alt. 1499

RWY 5-23

PAHOA (POA) (NDB)

12634N

freq. 332

RWY 5-23

RWY 17-35

MOLOKAI

61226E

61254E

62076E

62129E

1800 X 75

4495 X 100

3115 X 100

HAWAII - 7



60352E

60349E

61525E

62058E

1800 X 75

6500 X 150

6005 X 150

6 - HAWAII

13671N

LIHUE, KAUAI (F)

13673N

alt. 148 RWY 17-35

RWY 3-21

MAUI (OGG) (VOR)

13209N

12730N

alt. 1401

RWY 7-25

freq. 114.3 MAUNA KEA HONOLII

freq. 113.5

PELEAU UPOLU 12789N 62048E 12939N 61763E alt. 1089 alt. 95 RWY 7-25 2100 X 75 RWY 7-25 3800 X 75

HAWAII - 9

PORT ALLEN, KAUAI WAIMEA-KOHALA 13642N 60245E 12830N 61841E alt. 23 alt. 2670 RWY 9-27 2450 X 60 RWY 4-22 5195 X 100

PRINCEVILLE WAIPUNELEI 13774N 60313E 12822N 62002E alt. 358 alt. 1361 RWY 5-23 3400 X 75 RWY 11-29 2100 X 75

8 - HAWAII

12912N

freq. 112.3

61768E

SOUTH KAUAI (SOK) (VOR) WHEELER (HHI) (NDB)

13643N 60275E 13453N

60875E freq. 115.4 freq. 373 UPOLU (UPP) (VOR)

AIRPORT DIRECTORY - HAWAII AREA CHART									
AIRPORT	ISLAND	NORTH	EAST	ALT	FUI	ı. ILS	ATIS	VASI	
Barbers Point	Oahu	13384N	60862E	33					
Barking Sands PMRF	Kauai	13695N	60174E	16					
Dillingham	Oahu	13496N	60810E	16					
Ford Island ALF	Oahu	13409N	60905E	16					
General Lyman Fld	Hawaii	12707N	62094E	39		110.70/26	126.4	8.26.3	
Haiku	Kauai	13661N	60315E	384					
Hana	Maui	13165N	61694E	75					
HI 23	Kauai	13671N	60318E	479					
Honokaa	Hawaii	12864N	61907E	1440					
Honolulu Inti	Oahu	13388N	60916E	13	٠	109.50/8L	127.9	8R,26L,4L, 26R,4R,22	
Kahului	Maui	13205N	61525E	52		110.10/2	128.6	2.20.5	
Kalaupapa	Molokai	13339N	61307E	26					
Kaneohoe Bay MCAS	Oahu	13443N	60984E	16					
Kapalua West Maui	Maui	13236N	61427E	16					
Keahole	Hawaii	12716N	61690E	43		109.70/17	127.4	17,35	
anai	Lanai	13162N	61318E	1309					

13673N

12730N

13317N

12636N

12789N

13642N

13774N

12939N

12830N

12822N

Lihue, Kauai

Hawaii

Molokai

Hawaii

Hawaii

Kauar

Kauai

Hawaii

Hawaii

Hawaii

Libua

Molokai

Peleau

Upolu

Princeville

Waipunelei

Mauna Kea Honolii

Mountain View

Port Allen, Kauai

Waimea-Kohala

SANTA MONICA

ATIS 119.15

NAME

**FREQUENCY** 

NAME

NAME

FREQUENCY

NAME

FREQUENCY

\_VOR/DME

NAME

FREQUENCY

FREQUENCY

175-50

60349E 148

62058E 1401

62076E 1499

62048E 1089

60245E 23

61763E 95

60313E 358

61841E 2670

62002E 1361

LEGEND

Airport Name

VOR

VOR/DME

61254E 453

# Civil-Public use airport Restricted/Private-Nonpublic use airport, having emergency use or landmark value Rotating light in operation, sunset to sunrise Advisory Frequency (if available) Elevation (feet) - Length (hundreds of feet) VORTAC (Distance Measuring Equipment Able) Non Directional Beacon If VOR falls directly on an airport, only the airport symbol will be shown. The VOR facility type is shown at the top of the box.

110.90/35 127.2 17,35,3,21

128.2

### HAWAII AREA CHART

